

CMT-HPZ7/HPZ9

SERVICE MANUAL

Ver. 1.1 2005.05

- CMT-HPZ7/HPZ9 are composed of following models.
As for the service manual, it is issued for each component model,
then, please refer to them.

COMPONENT MODEL NAME

	CMT-HPZ7	CMT-HPZ9
COMPACT DISK DECK RECEIVER SYSTEM	HCD-HPZ7	HCD-HPZ9
SPEAKER SYSTEM	SS-CHPZ7	SS-CHPZ9

PARTS LIST

Part No.	Description	Remarks
1-754-102-31	ANTENNA, ROOP (LW.MW)(AM)	
1-754-243-11	ANTENNA (FM)	
△ 1-569-008-32	ADAPTOR, CONVERSION (SP2, E51)	
△ 1-770-019-51	ADAPTOR, CONVERSION PLUG (UK)	
1-793-184-23	CONNECTOR (F TYPE ADAPTOR)(FM)	
2-591-385-12	MANUAL, INSTRUCTION (ENGLISH) (EXCEPT HPZ7 : KR, MX/HPZ9 : KR)	
2-591-385-21	MANUAL, INSTRUCTION (FRENCH)(CND, AEP, SP2)	
2-591-385-32	MANUAL, INSTRUCTION (SPANISH) (AEP, MX, SP2, E51, AR)	
2-591-385-41	MANUAL, INSTRUCTION (GERMAN, DUTCH)(AEP)	
2-591-385-51	MANUAL, INSTRUCTION (ITALIAN, PORTUGUESE)(AEP)	
2-591-385-61	MANUAL, INSTRUCTION (SWEDISH, DANISH, FINNISH) (CET)	
2-591-385-71	MANUAL, INSTRUCTION (POLISH, CZECH, HUNGARIAN) (CET)	
2-591-385-81	MANUAL, INSTRUCTION (GREEK, RUSSIAN)(CET)	
2-591-385-91	MANUAL, INSTRUCTION (TRADITIONAL CHINESE) (TW,SP2)	
2-591-386-11	MANUAL, INSTRUCTION (KOREAN)(KR)	
2-591-387-11	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (ENGLISH)(EXCEPT HPZ7: KR, MX/HPZ9:KR)	

- Abbreviation
CND : Canadian model
CET : East European and Russian model
MX : Mexican model
TW : Taiwan model
E51 : Chilean and Peruvian model
AR : Argentina model
KR : Korean model
SP2 : Singapore model

Part No.	Description	Remarks
2-591-387-21	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (FRENCH)(CND, AEP, SP2)	
2-591-387-31	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (SPANISH)(AEP, MX, SP2, E51, AR)	
2-591-387-41	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (GERMAN, DUTCH)(AEP)	
2-591-387-51	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (ITALIAN, PORTUGUESE)(AEP)	
2-591-387-61	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (SWEDISH, DANISH, FINNISH)(CET)	
2-591-387-71	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (POLISH, CZECH, HUNGARIAN)(CET)	
2-591-387-81	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (GREEK, RUSSIAN)(CET)	
2-591-388-11	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (TRADITIONAL CHINESE)(TW,SP2)	
2-591-388-21	MANUAL, INSTRUCTION (Sonic Stage Ver.2.3) (KOREAN)(KR)	
7-685-103-19	SCREW +P 2X5 TYPE2 NON-SLIT (FOR SPEAKER)	
A-1108-433-A	COMMANDER, STANDARD (RM-SC50) (Including Battery Cover)	
X-2050-858-1	CD-ROM (APPLICATION) ASSY (SS2.3)	

The components identified by
mark △ or dotted line with mark
△ are critical for safety.
Replace only with part number
specified.

Les composants identifiés par
une marque △ sont critiques
pour la sécurité.
Ne les remplacer que par une
pièce portant le numéro spécifié.

US Model
CMT-HPZ9
Canadian Model
CMT-HPZ7/HPZ9
AEP Model
UK Model
CMT-HPZ7
E Model
CMT-HPZ7/HPZ9
Australian Model
CMT-HPZ9

MICRO HI-FI COMPONENT SYSTEM

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Personal Audio Group
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SONY®

REVISION HISTORY

Clicking the version allows you to jump to the revised page.

Also, clicking the version at the upper right on the revised page allows you to jump to the next revised page.

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HCD-HPZ7/HPZ9

SERVICE MANUAL

Ver. 1.4 2005.09



Photo : HCD-HPZ7

HCD-HPZ7/HPZ9 are the Amplifier, CD player, Tape Deck and Tuner section in CMT-HPZ7/HPZ9.

US Model

HCD-HPZ9

Canadian Model

HCD-HPZ7/HPZ9

AEP Model

UK Model

HCD-HPZ7

E Model

HCD-HPZ7/HPZ9

Australian Model

HCD-HPZ9

US and foreign patents licensed from
Dolby Laboratories.

		Former Type Models	New Type Models
CD Section	Model Name Using Similar Mechanism	NEW	NEW
	CD Mechanism Type	CDM82C-F1BD83	CDM82C-K6BD83
	Base Unit Name	BU-F1BD83	BU-K6BD83
	Optical Pick-up Name	KSM-215DCP	KSM-213DCP/C2NP
TAPE Section	Model Name Using Similar Mechanism	NEW	NEW
	Tape Transport Mechanism Type	CMAL5Z225A	CMAL5Z225A

SPECIFICATIONS

Amplifier section

For the United States model

AUDIO POWER SPECIFICATIONS

HCD-HPZ9

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6-ohm loads, both channels driven, from 120 – 10,000 Hz: rated 85 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

HCD-HPZ7

POWER OUTPUT AND TOTAL HARMONIC DISTORTION:

With 6-ohm loads, both channels driven, from 120 – 10,000 Hz: rated 50 watts per channel minimum RMS power, with no more than 10% total harmonic distortion from 250 milliwatts to rated output.

HCD-HPZ9

North American model:

Continuous RMS power output (reference):

85 + 85 W
(6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 240 V, AC 220 V or AC 120 V

DIN power output (rated): 53 + 53 W
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference):
70 + 70 W
(6 ohms at 1 kHz, 10% THD)

HCD-HPZ7

North American model:

Continuous RMS power output (reference):
50 + 50 W
(6 ohms at 1 kHz, 10% THD)

European model:

DIN power output (rated): 50 + 50 W (6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference):
60 + 60 W (6 ohms at 1 kHz, 10% THD)

Music power output (reference):

100 + 100 W (6 ohms at 1 kHz, 10% THD)

Other models:

The following measured at AC 220 – 240 V, 50/60 Hz

DIN power output (rated): 45 + 45 W
(6 ohms at 1 kHz, DIN)
Continuous RMS power output (reference):
50 + 50 W
(6 ohms at 1 kHz, 10% THD)

Inputs

ANALOG IN (stereo mini jack):

Sensitivity 250 mV,
impedance 47 kilohms

Outputs

CD DIGITAL OUT: Optical Wavelength:
660 nm

PHONES (stereo mini jack):

accepts headphones with
an impedance of 8 ohms or
more

SPEAKER:

accepts impedance of 6 to
16 ohms

— Continued on next page —

MICRO HI-FI COMPONENT SYSTEM

HCD-HPZ7/HPZ9

CD player section

System	Compact disc and digital audio system
Laser Diode Properties	Emission duration: continuous Laser Output*: Less than 44.6 μW
* This output is the value measurement at a distance of 200 mm from the objective lens surface on the Optical Pick-up Block with 7 mm aperture.	
Frequency response	20 Hz – 20 kHz (±0.5 dB)
Wavelength	780 – 790 nm

Tape deck section

Recording system	4-track 2-channel stereo
Frequency response	50 – 13,000 Hz (±3 dB), using Sony TYPE I cassettes

Tuner section

FM stereo, FM/AM superheterodyne tuner	
FM tuner section	
Tuning range	87.5 – 108.0 MHz
Antenna	FM lead antenna
Antenna terminals	75 ohms unbalanced
Intermediate frequency	10.7 MHz
AM tuner section	
Tuning range	
Pan-American model:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,710 kHz (with the tuning interval set at 9 kHz)
European model:	531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Other models:	530 – 1,710 kHz (with the tuning interval set at 10 kHz) 531 – 1,602 kHz (with the tuning interval set at 9 kHz)
Antenna	AM loop antenna
Antenna terminals	External antenna terminal
Intermediate frequency	450 kHz

General

Power requirements	
North American model:	120 V AC, 60 Hz
European model:	230 V AC, 50/60 Hz
Other models:	120 V, 220 V or 230 – 240 V AC, 50/60 Hz Adjustable with voltage selector
Power consumption	
HPZ9	
North American model:	145 W
Other models:	125 W
HPZ7	
North American model:	85 W
European model:	95 W
	0.25 W (in Power Saving Mode)
Other models:	90 W
Dimensions (w/h/d) (excl. speakers)	
	Approx. 198 × 275 × 341 mm
Mass (excl. speakers)	
Amplifier/Tuner/Tape/CD section:	
HPZ9:	7.7 kg
HPZ7:	7.3 kg

Design and specifications are subject to change without notice.

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK  OR DOTTED LINE WITH MARK  ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

ATTENTION AU COMPOSANT AYANT RAPPORT À LA SÉCURITÉ!

LES COMPOSANTS IDENTIFIÉS PAR UNE MARQUE  SUR LES DIAGRAMMES SCHÉMATIQUES ET LA LISTE DES PIÈCES SONT CRITIQUES POUR LA SÉCURITÉ DE FONCTIONNEMENT. NE REMPLACER CES COM- POSANTS QUE PAR DES PIÈCES SONY DONT LES NUMÉROS SONT DONNÉS DANS CE MANUEL OU DANS LES SUPPLÉMENTS PUBLIÉS PAR SONY.

Notes on chip component replacement

- Never reuse a disconnected chip component.
- Notice that the minus side of a tantalum capacitor may be damaged by heat.

Flexible Circuit Board Repairing

- Keep the temperature of the soldering iron around 270 °C during repairing.
- Do not touch the soldering iron on the same conductor of the circuit board (within 3 times).
- Be careful not to apply force on the conductor when soldering or unsoldering.

SAFETY CHECK-OUT

After correcting the original service problem, perform the following safety check before releasing the set to the customer:

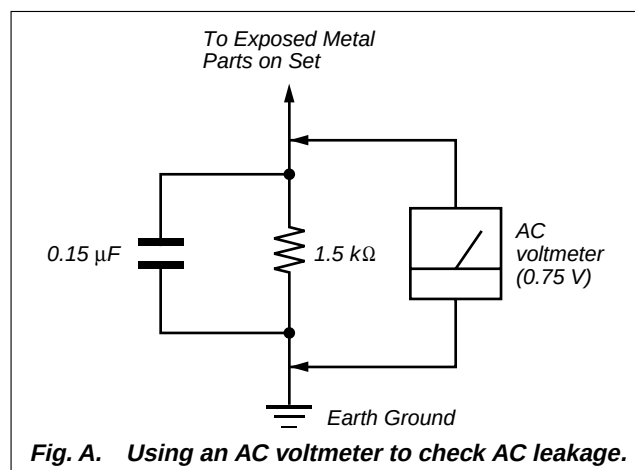
Check the antenna terminals, metal trim, “metallized” knobs, screws, and all other exposed metal parts for AC leakage.

Check leakage as described below.

LEAKAGE TEST

The AC leakage from any exposed metal part to earth ground and from all exposed metal parts to any exposed metal part having a return to chassis, must not exceed 0.5 mA (500 microamperes.). Leakage current can be measured by any one of three methods.

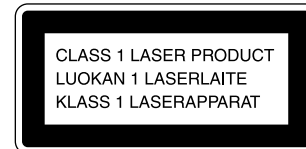
1. A commercial leakage tester, such as the Simpson 229 or RCA WT-540A. Follow the manufacturers' instructions to use these instruments.
2. A battery-operated AC milliammeter. The Data Precision 245 digital multimeter is suitable for this job.
3. Measuring the voltage drop across a resistor by means of a VOM or battery-operated AC voltmeter. The “limit” indication is 0.75 V, so analog meters must have an accurate low-voltage scale. The Simpson 250 and Sanwa SH-63Trd are examples of a passive VOM that is suitable. Nearly all battery operated digital multimeters that have a 2 V AC range are suitable. (See Fig. A)



CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

This appliance is classified as a CLASS 1 LASER product. The CLASS 1 LASER PRODUCT MARKING is located on the exterior.



Laser component in this product is capable of emitting radiation exceeding the limit for Class 1.

NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic break-down because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic break-down and also use the procedure in the printed matter which is included in the repair parts.

The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SEARCH OPERATION CHECK

Carry out the “S curve check” in “CD section adjustment” and check that the S curve waveforms is output three times.

UNLEADED SOLDER

Boards requiring use of unleaded solder are printed with the lead-free mark (LF) indicating the solder contains no lead.

(Caution: Some printed circuit boards may not come printed with the lead free mark due to their particular size)



: LEAD FREE MARK

Unleaded solder has the following characteristics.

- Unleaded solder melts at a temperature about 40 °C higher than ordinary solder.

Ordinary soldering irons can be used but the iron tip has to be applied to the solder joint for a slightly longer time.

Soldering irons using a temperature regulator should be set to about 350 °C.

Caution: The printed pattern (copper foil) may peel away if the heated tip is applied for too long, so be careful!

- Strong viscosity
Unleaded solder is more viscous (sticky, less prone to flow) than ordinary solder so use caution not to let solder bridges occur such as on IC pins, etc.
- Usable with ordinary solder
It is best to use only unleaded solder but unleaded solder may also be added to ordinary solder.

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SECTION 1 GENERAL

This section is extracted
from instruction manual.

List of button locations and reference pages

Main unit

ALPHABETICAL ORDER

A – I

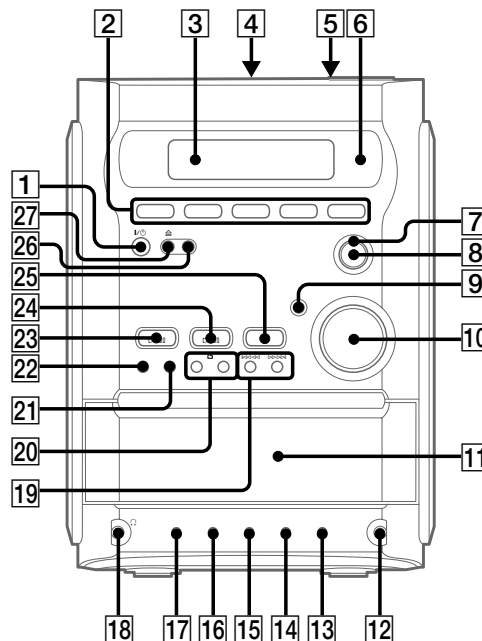
ANALOG IN jack **12** (22, 24, 28)
 CANCEL **21** (15)
 Cassette compartment **4** (21)
 CD SYNC **15** (22)
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 TUNE +/- **19** (18, 19)
 VOLUME control **10**

BUTTON DESCRIPTIONS

I/⏻ (power) **1** (11, 19, 32)
 ▲ PUSH OPEN/CLOSE (tape
 open/close) **5** (21)
 ⏮⏪⏩⏭ (rewind/fast
 forward, go back/go forward)
 19 (14, 21, 23)
 📁 +/- (select group) **20** (14, 22)
 ■ (stop) **21** (12, 19, 22)
 TAPE ▷ (play) **23** (21)
 CD ▷⏮ (play) **24** (14)
 ▲ (CD open/close) **27** (13, 21)



Remote control

ALPHABETICAL ORDER

A – E

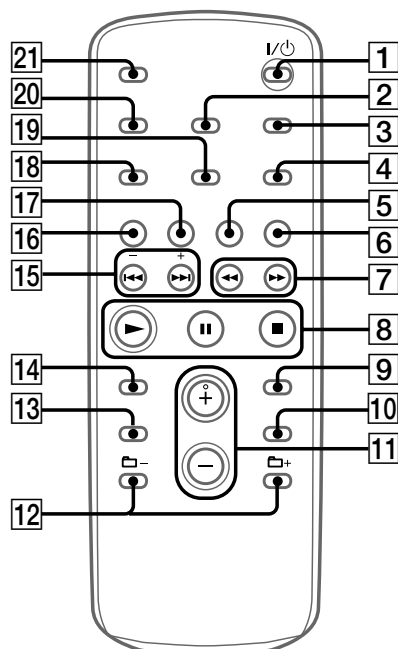
CD **17** (14, 16)
 CLEAR **14** (17)
 CLOCK/TIMER SELECT **2**
 (24, 25)
 CLOCK/TIMER SET **3** (12, 24,
 25)
 DISC SKIP **10** (14, 16)
 DISPLAY **20** (20, 26, 27)
 ENTER **9** (12, 16, 18, 24, 25)
 EQ **13** (23)

F – Z

FM MODE **4** (20)
 FUNCTION **6** (14, 16, 18, 19,
 21, 22, 29)
 PLAY MODE **19** (14, 16, 22)
 REPEAT **4** (16)
 SLEEP **21** (23)
 TAPE **16** (21)
 TUNER BAND **5** (18, 19)
 TUNER MEMORY **18** (18)
 TUNING MODE **19** (18, 19)
 VOLUME +/- **11** (24)

BUTTON DESCRIPTIONS

I/⏻ (power) **1** (12, 24)
 ◀◀/▶▶ (rewind/fast forward)
7 (14, 21)
 ▶ (play) **8** (14, 21)
 || (pause) **8** (14, 21)
 ■ (stop) **8** (14, 21)
 ◻ +/- (select group) **12** (14, 16)
 ◀◀/▶▶ (go back/go forward)
15 (12, 14, 23, 24)
 +/- (tuning) **15** (18)



Setting the clock

Use buttons on the remote for the operation.

- 1** Press I/⏻ to turn on the system.
- 2** Press CLOCK/TIMER SET.
- 3** Press ◀◀ or ▶▶ repeatedly to set the hour.
- 4** Press ENTER.
- 5** Press ◀◀ or ▶▶ repeatedly to set the minute.
- 6** Press ENTER.
The clock starts working.

To adjust the clock

- 1** Press CLOCK/TIMER SET.
- 2** Press ◀◀ or ▶▶ repeatedly to select "CLOCK SET", then press ENTER.
- 3** Do the same procedures as step 3 to 6 above.

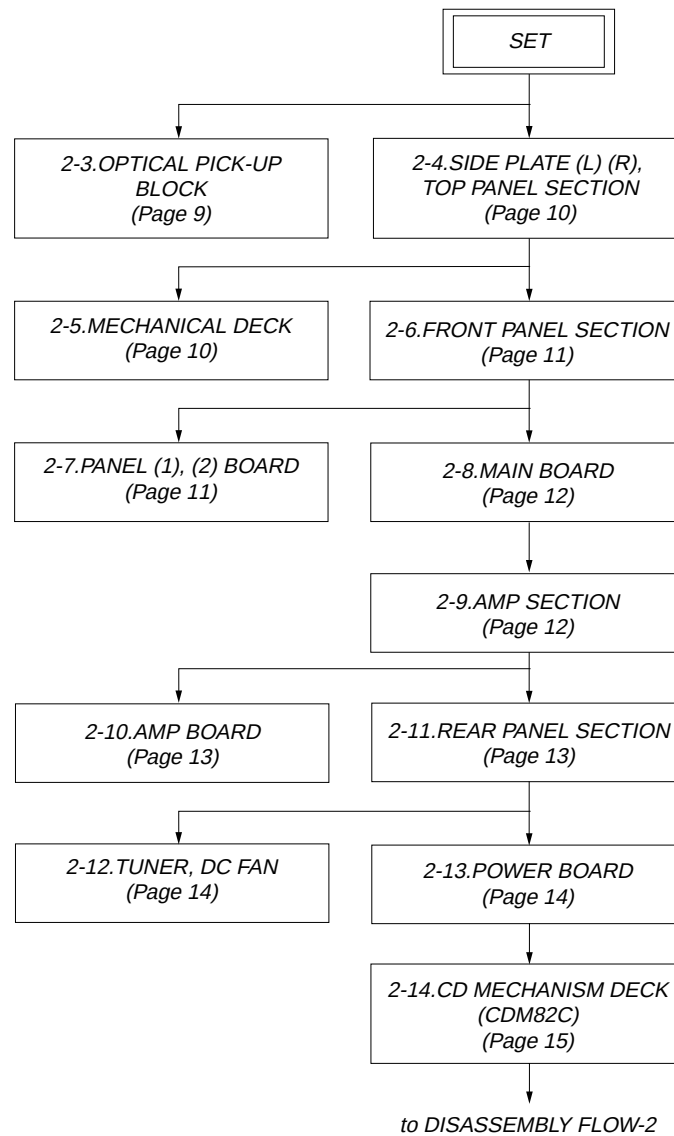
Note

The clock is not displayed in Power Saving Mode (page 26).

SECTION 2 DISASSEMBLY

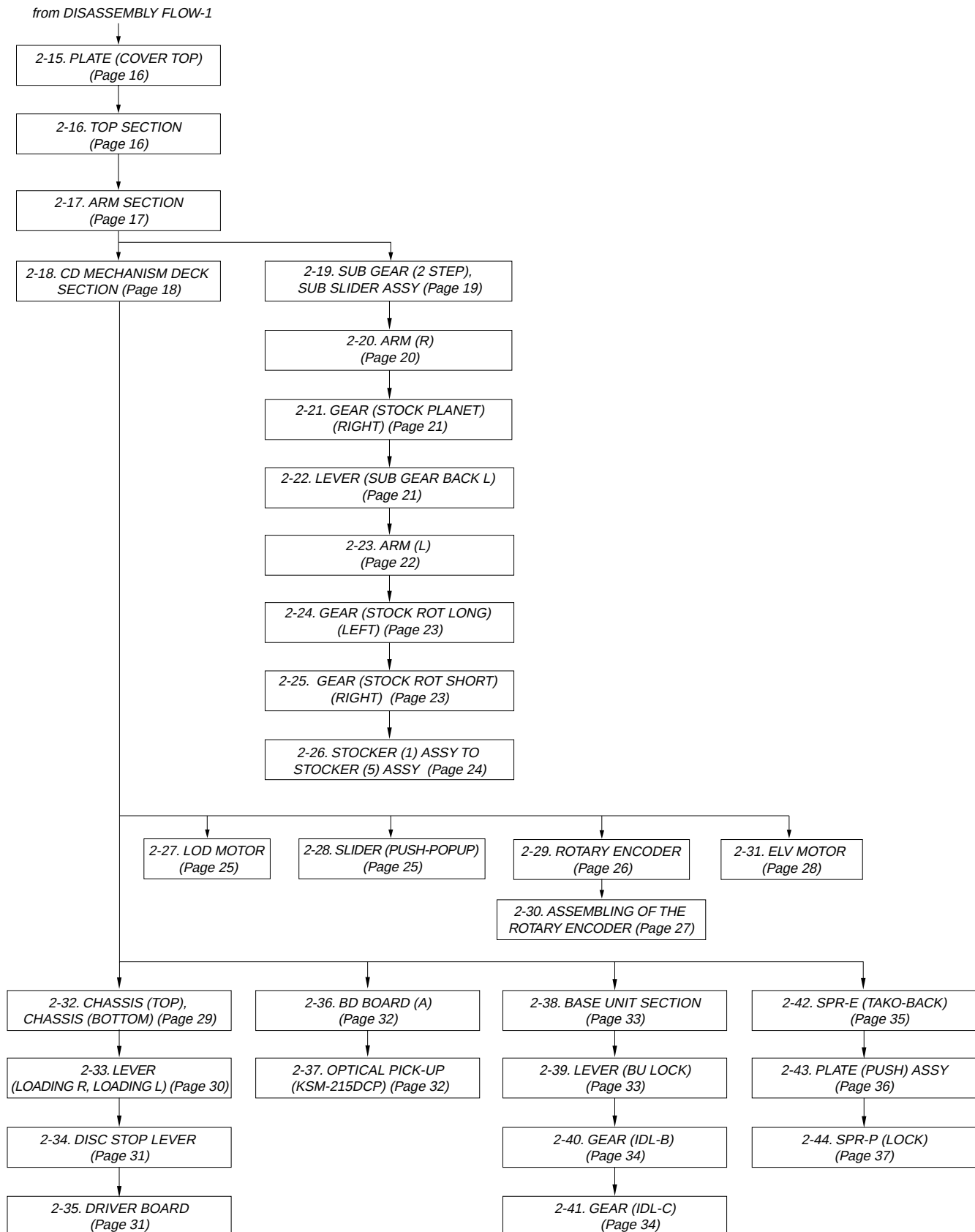
2-1. DISASSEMBLY FLOW-1

- This set can be disassembled in the order shown below.



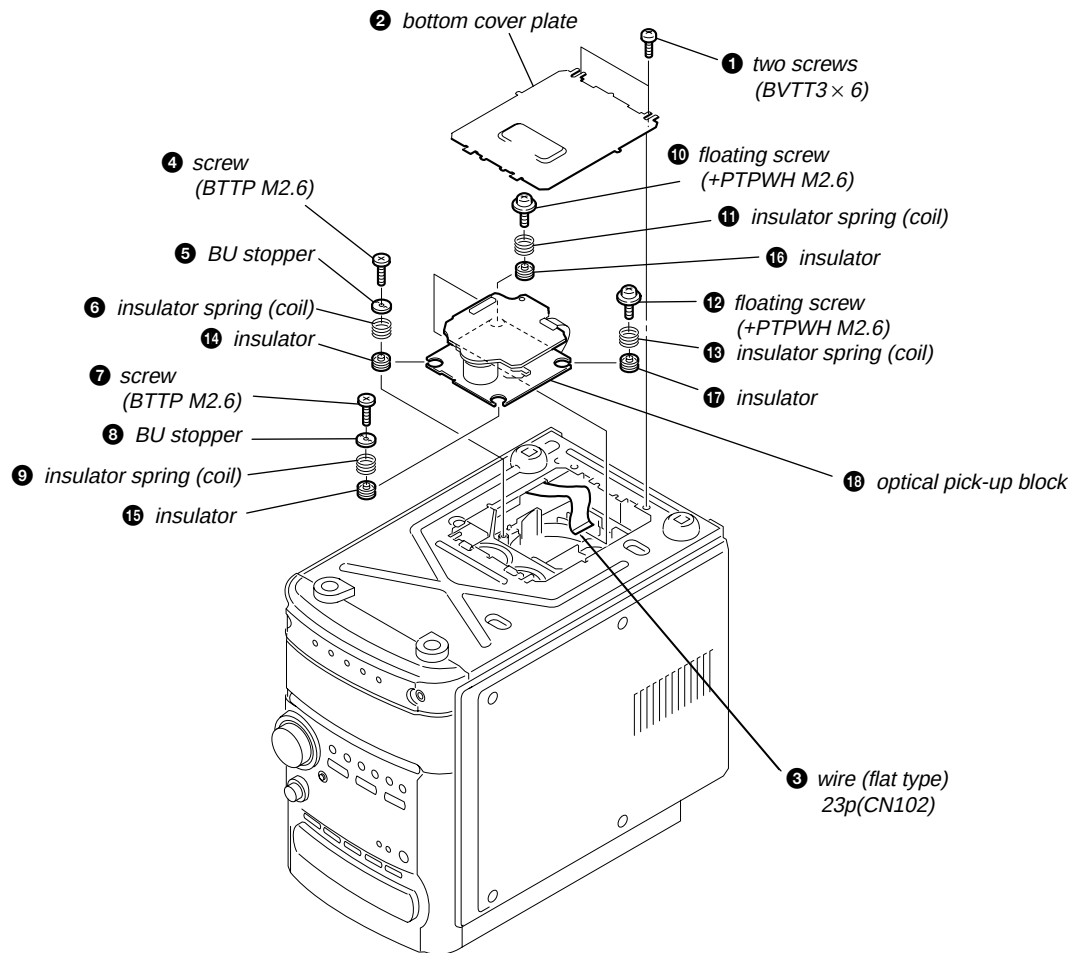
2-2. DISASSEMBLY FLOW-2

- This set can be disassembled in the order shown below.

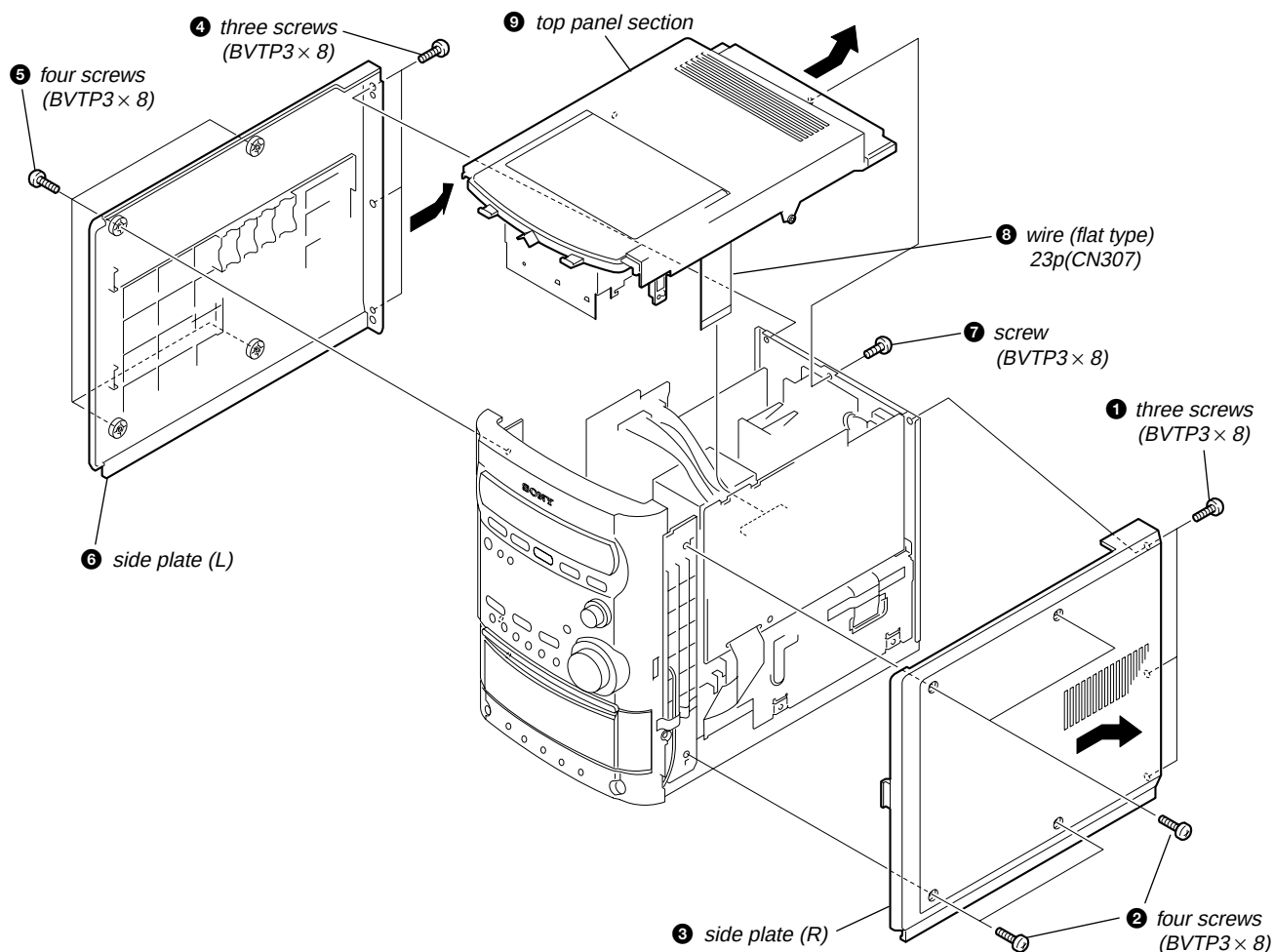


Note: Follow the disassembly procedure in the numerical order given.

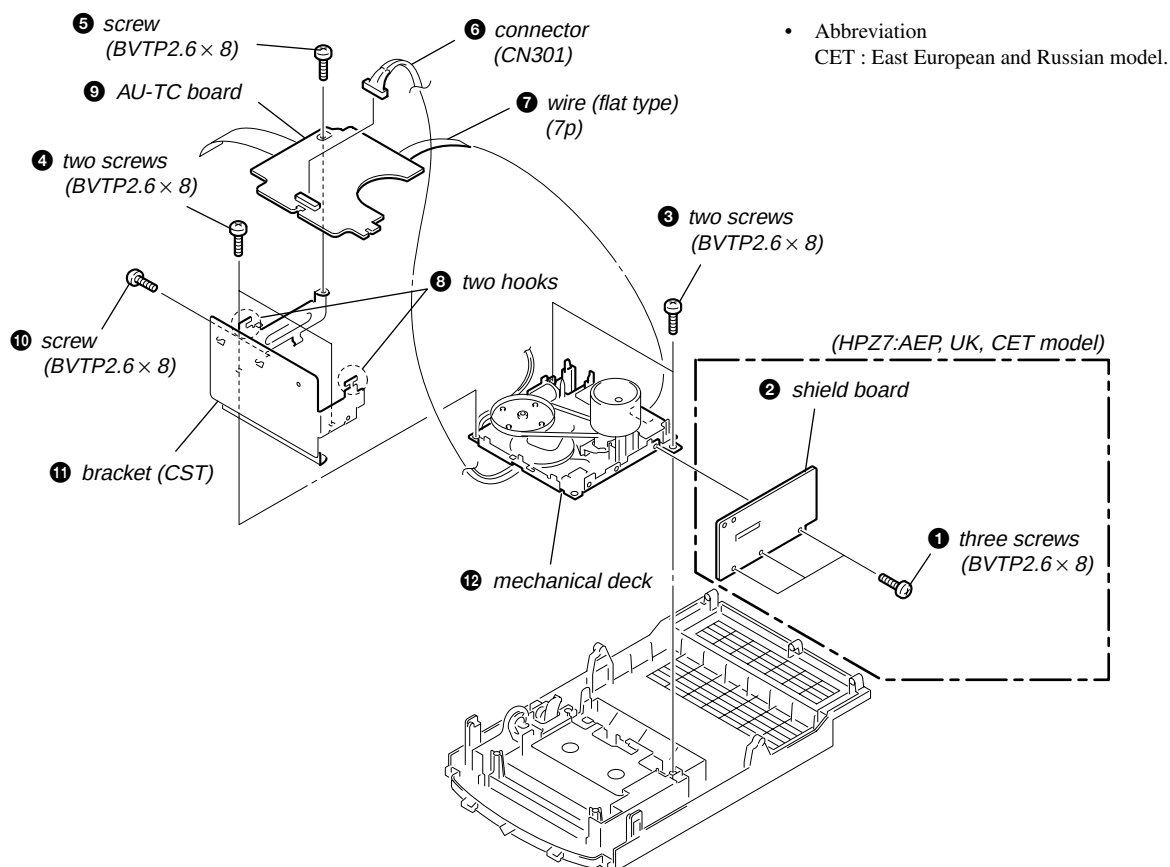
2-3. OPTICAL PICK-UP BLOCK



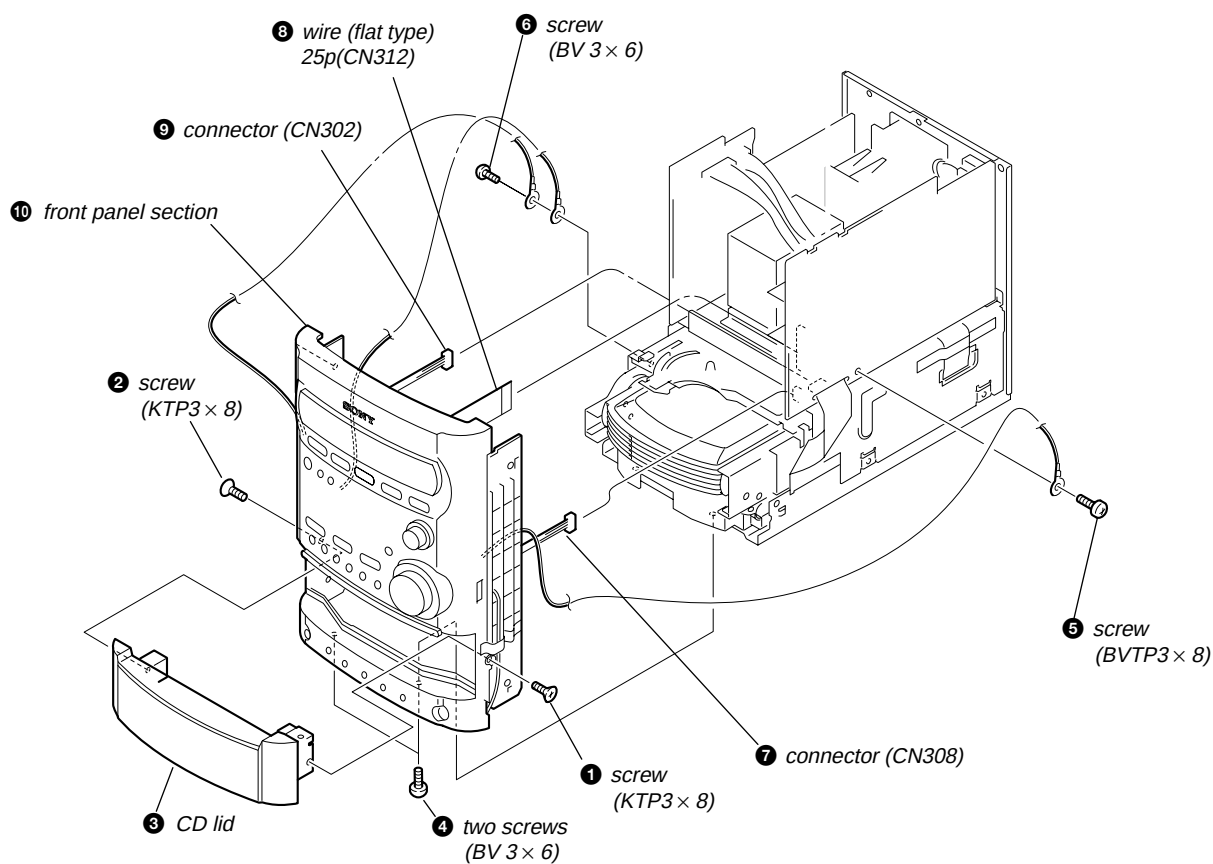
2-4. SIDE PLATE (L) (R), TOP PANEL SECTION



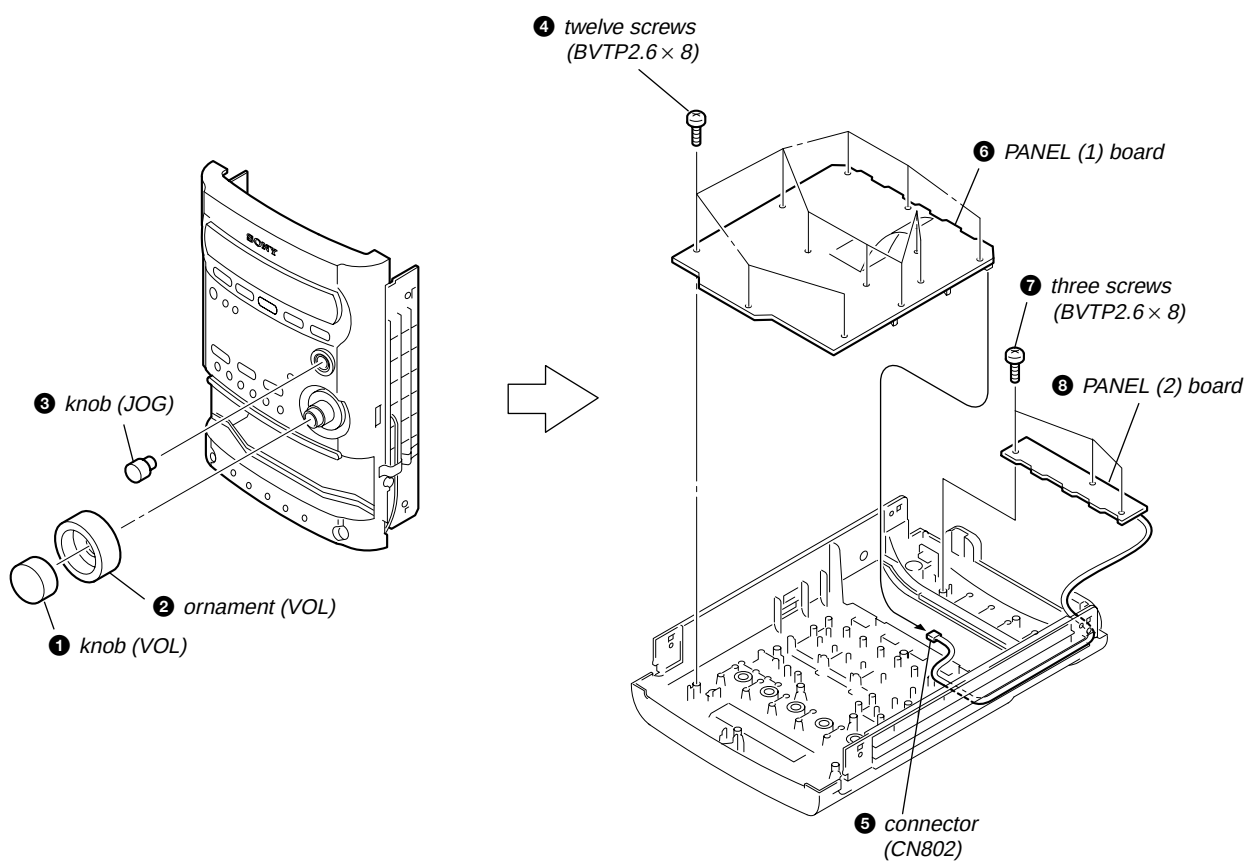
2-5. MECHANICAL DECK



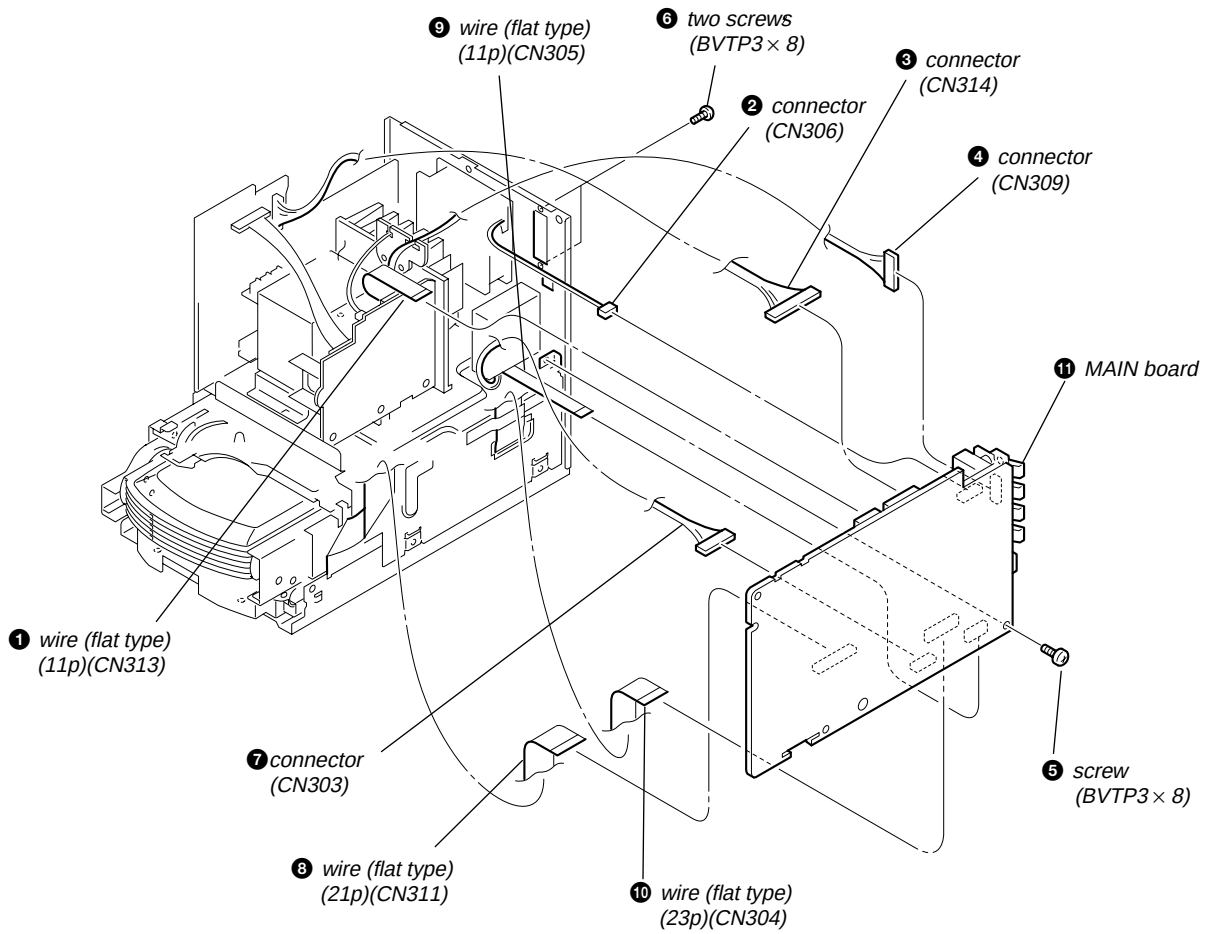
2-6. FRONT PANEL SECTION



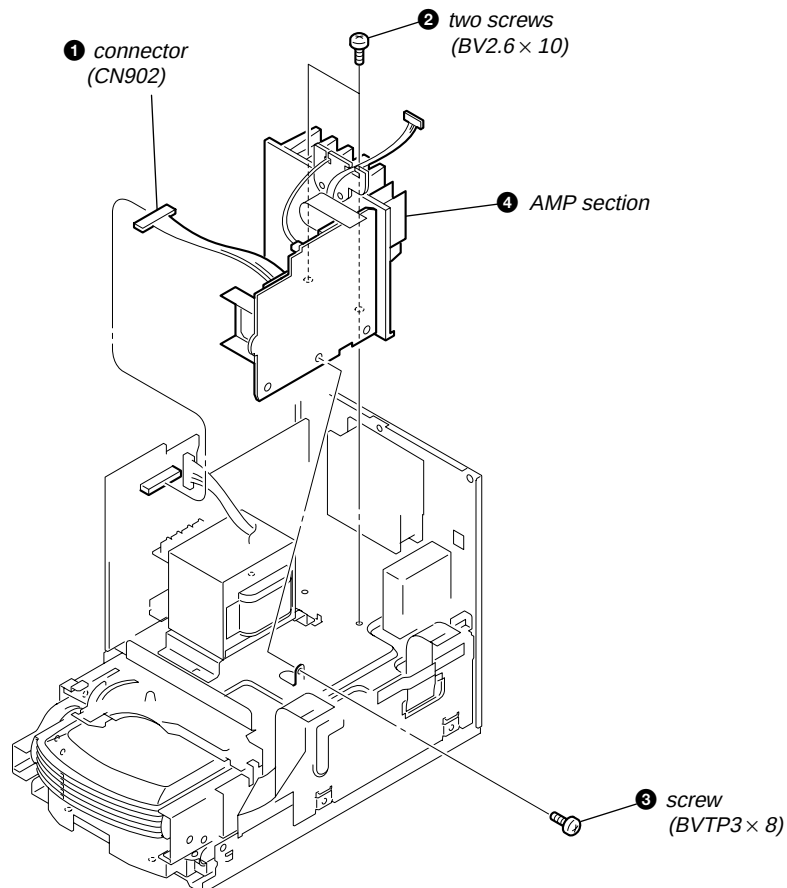
2-7. PANEL (1), (2) BOARD



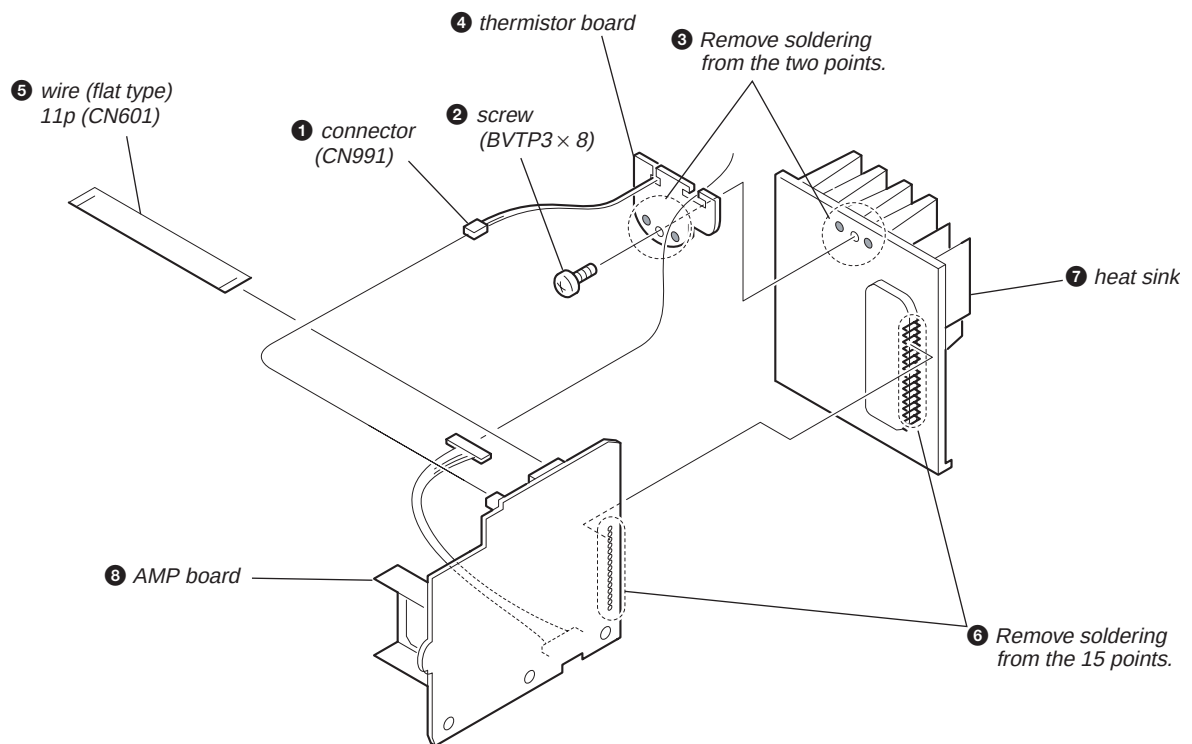
2-8. MAIN BOARD



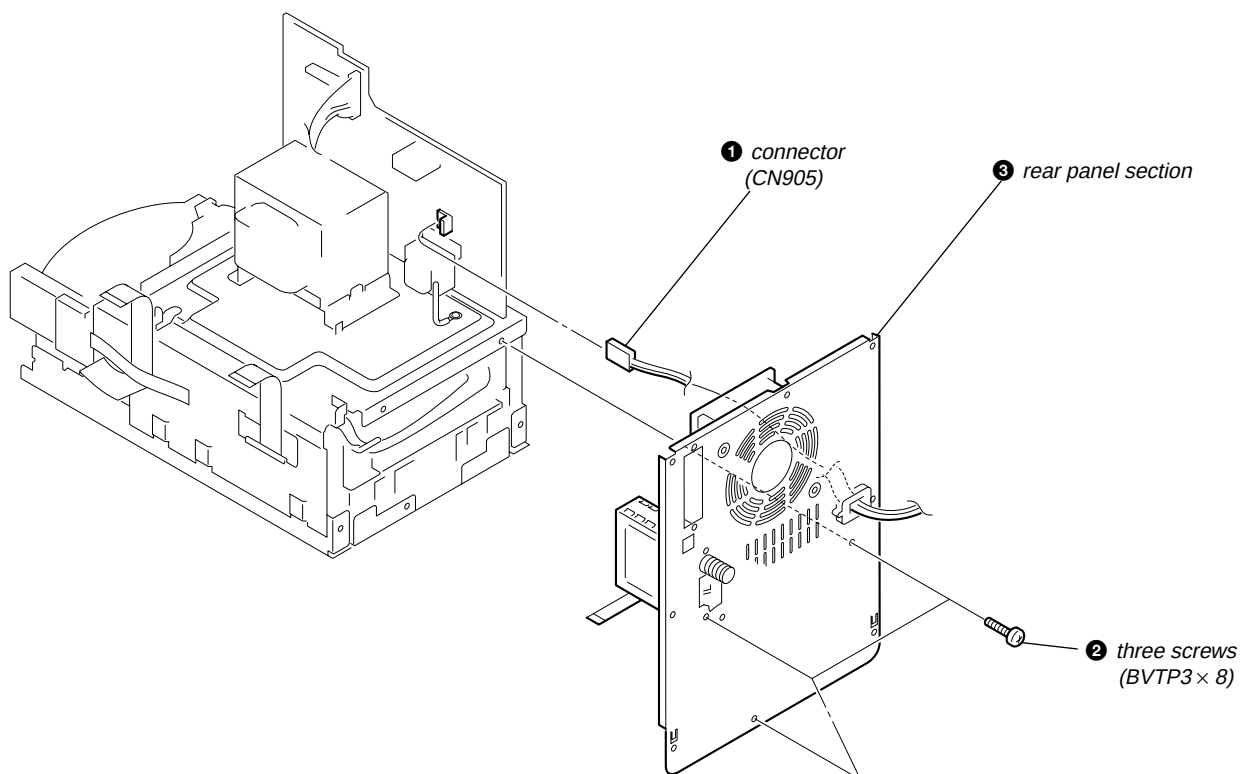
2-9. AMP SECTION



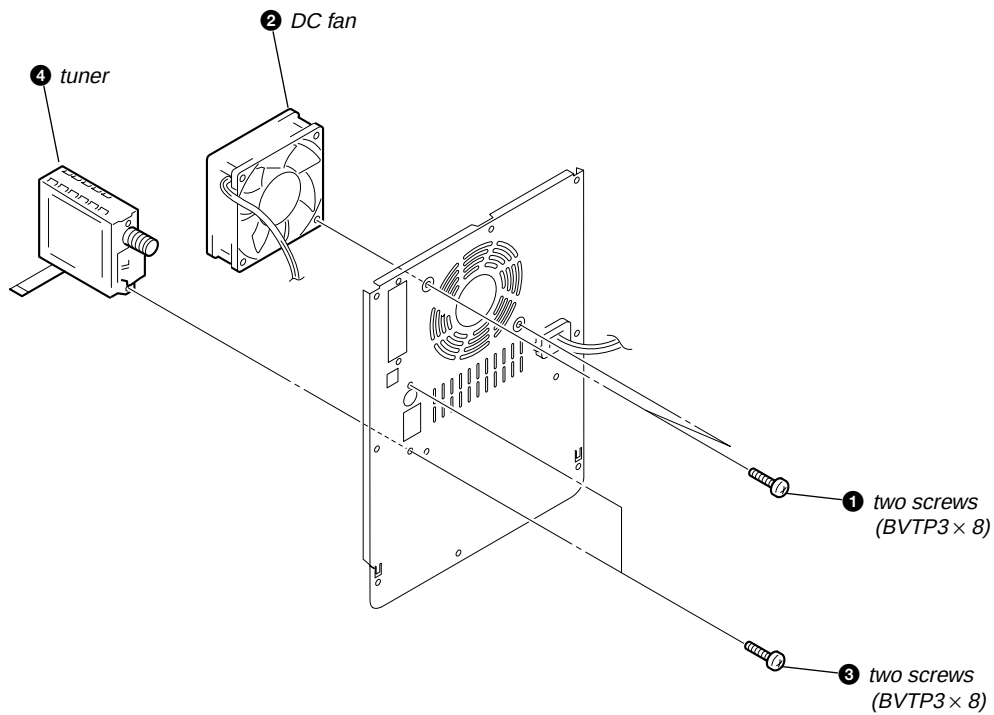
2-10. AMP BOARD



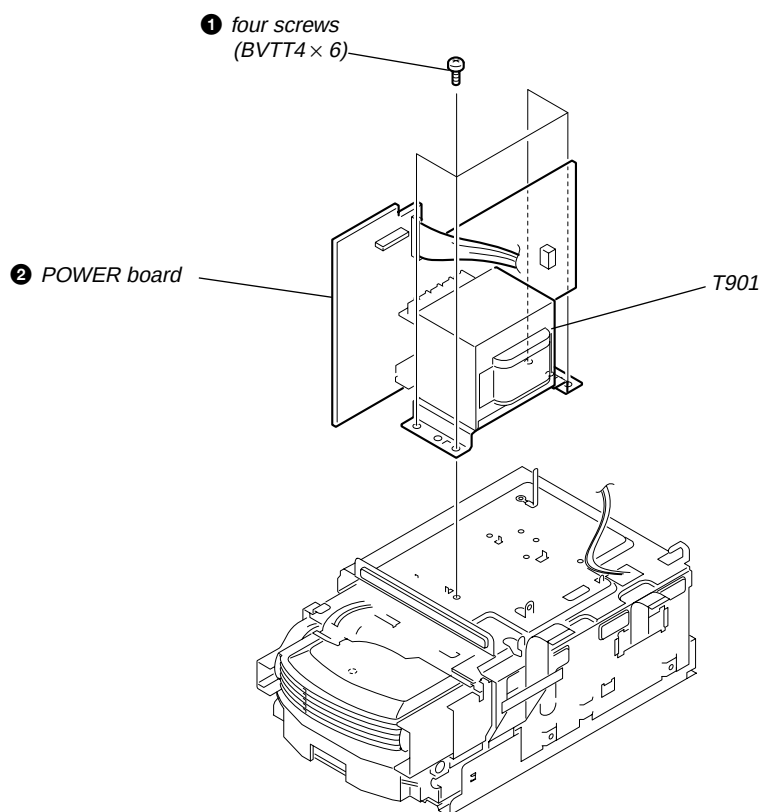
2-11. REAR PANEL SECTION



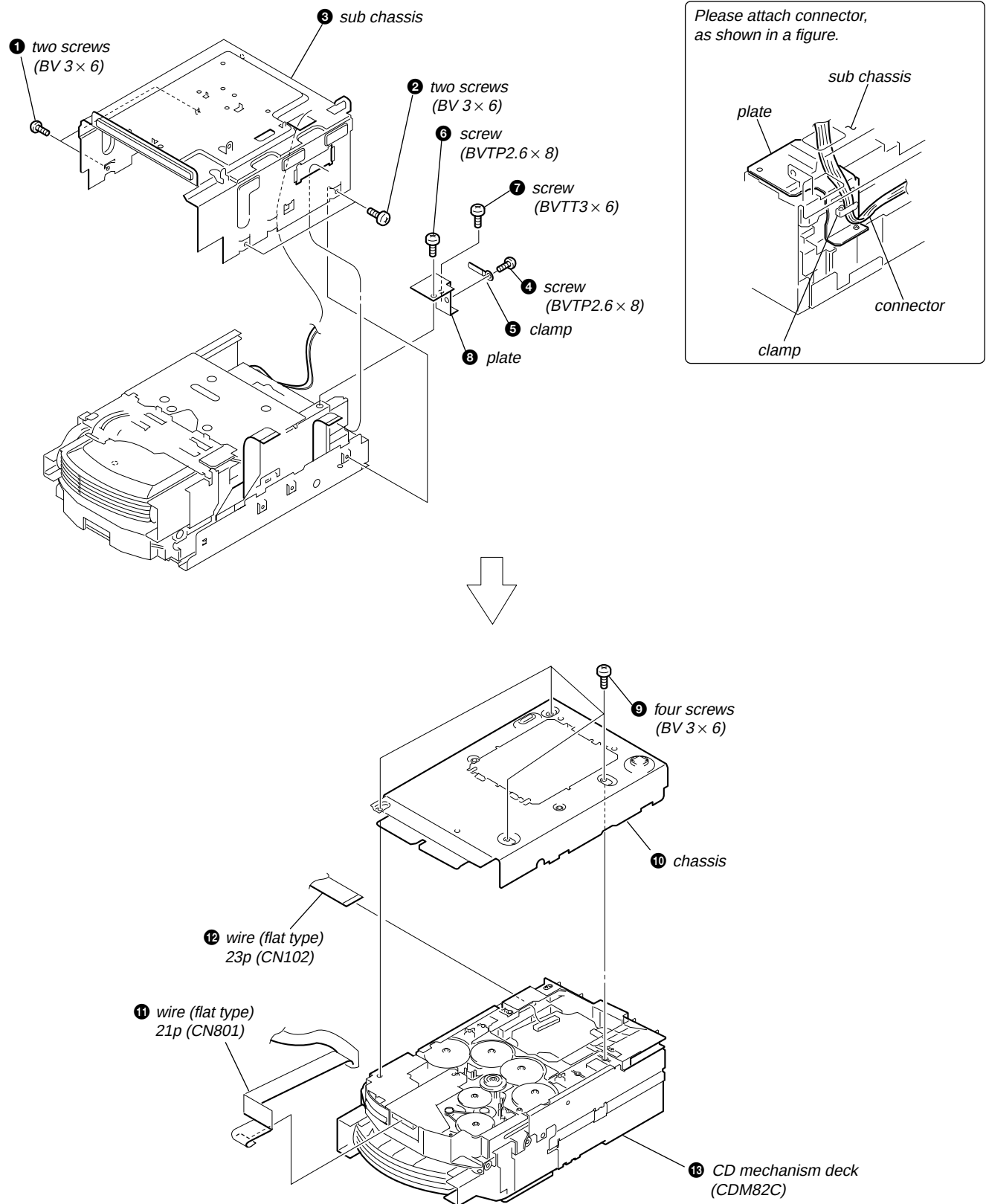
2-12. TUNER, DC FAN



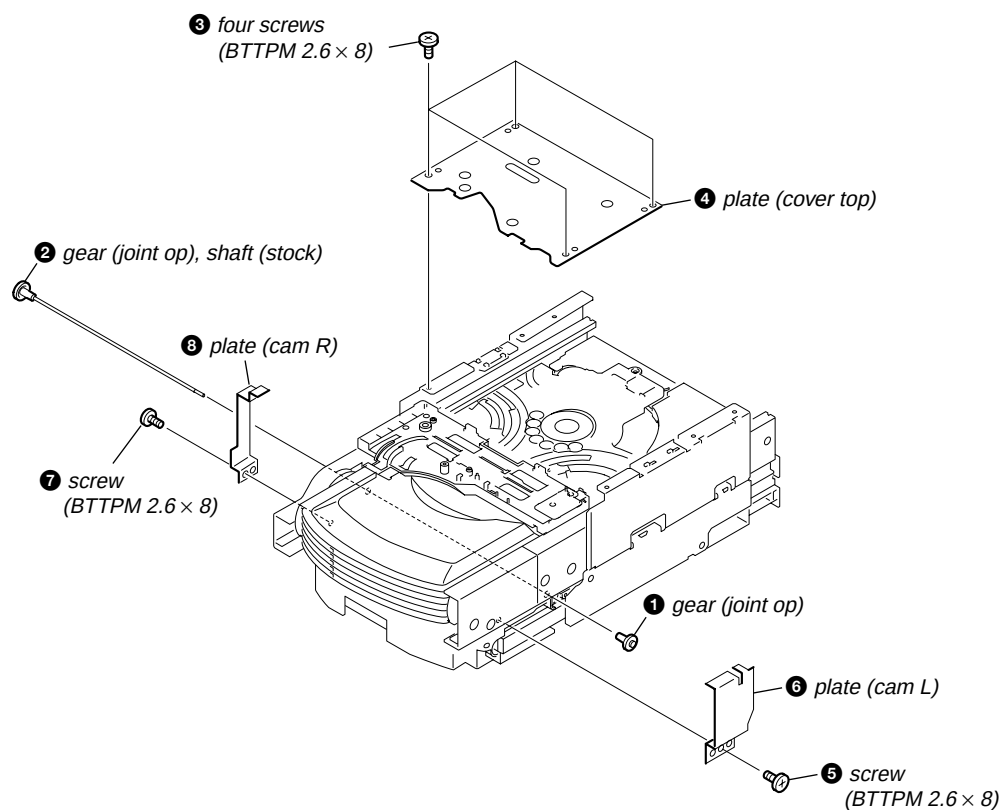
2-13. POWER BOARD



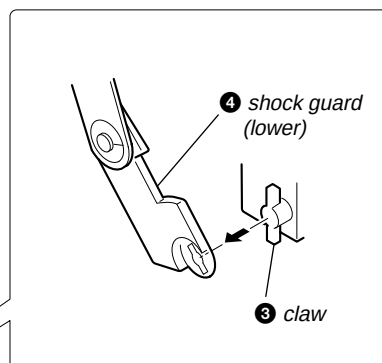
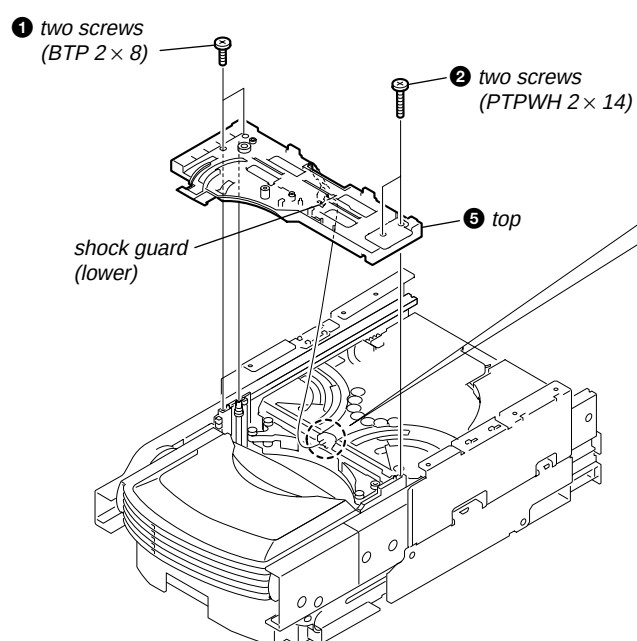
2-14. CD MECHANISM DECK (CDM82C)



2-15. PLATE (COVER TOP)

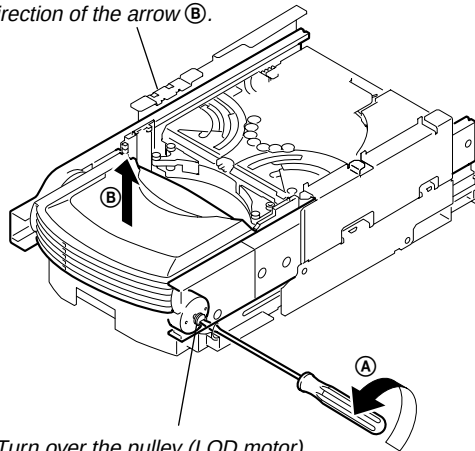


2-16. TOP SECTION



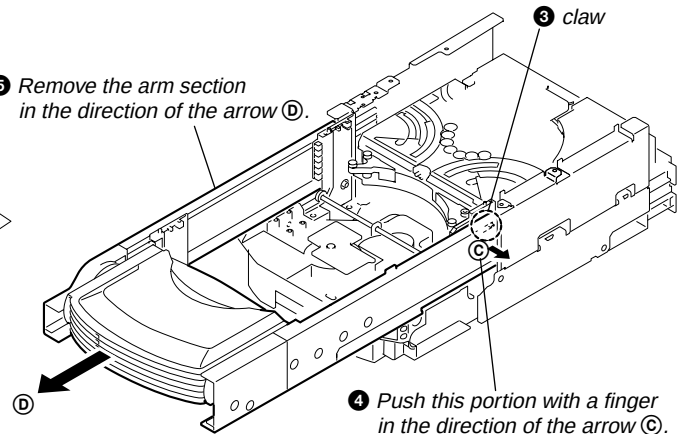
2-17. ARM SECTION

- 2 Slide the arm section in the direction of the arrow B.



- 1 Turn over the pulley (LOD motor) in the direction of the arrow A.

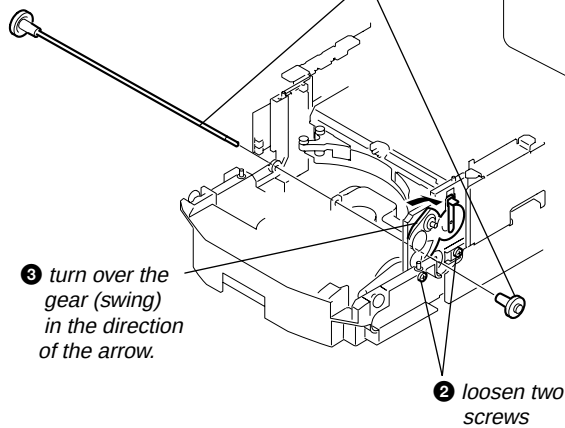
- 5 Remove the arm section in the direction of the arrow D.



- 4 Push this portion with a finger in the direction of the arrow C.

PRECAUTION DURING ARM SECTION INSTALLATION

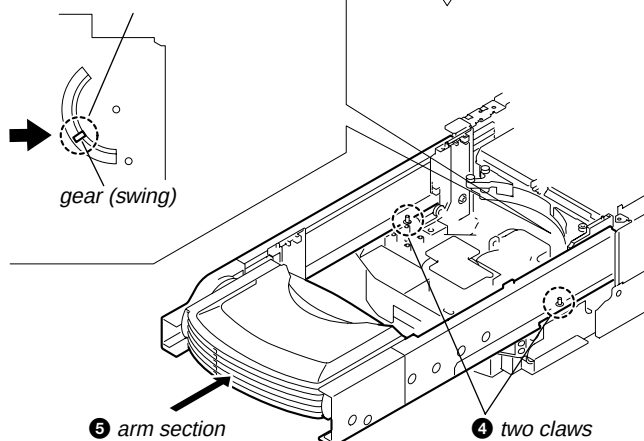
- 1 gear (joint op), two shaft (shaft) stocks



- 3 turn over the gear (swing) in the direction of the arrow.

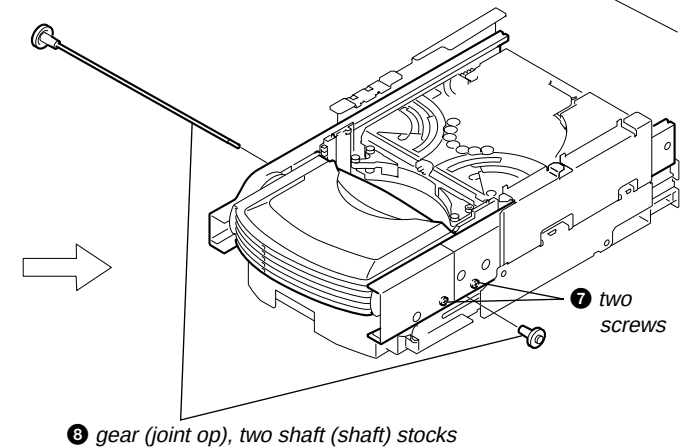
- 2 loosen two screws

- 6 Push this portion with a finger in the direction of the arrow C.



- 5 arm section

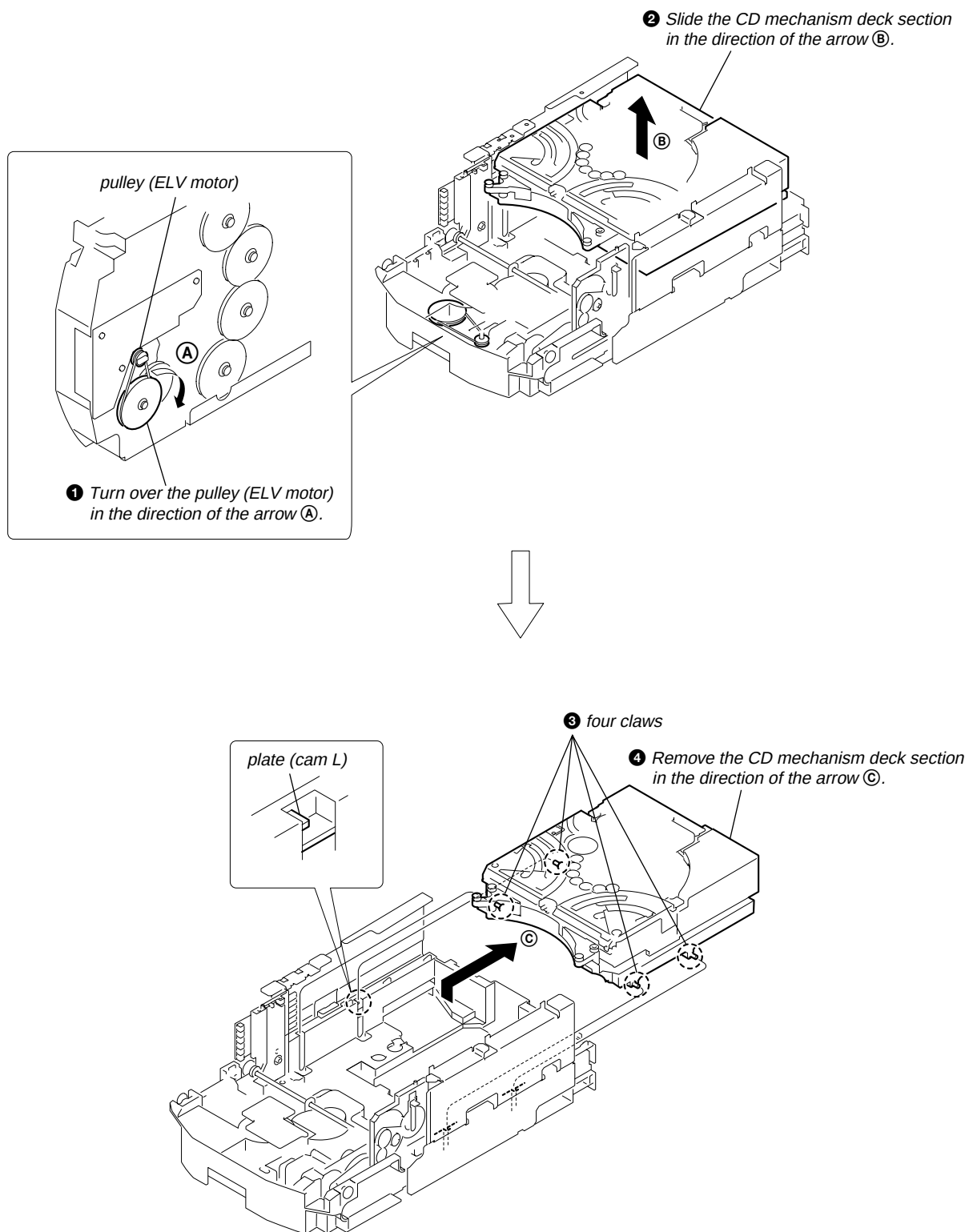
- 4 two claws



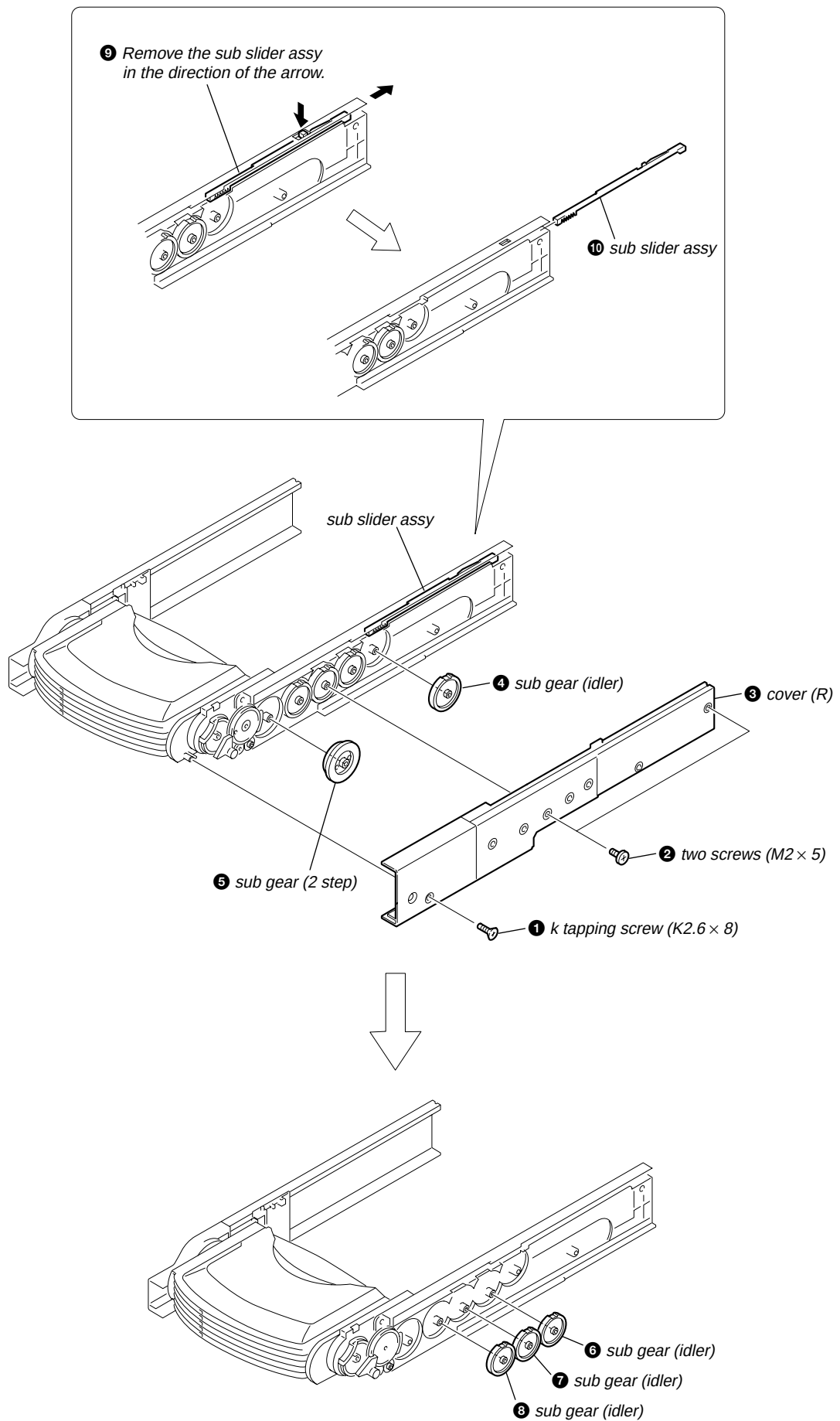
- 8 gear (joint op), two shaft (shaft) stocks

- 7 two screws

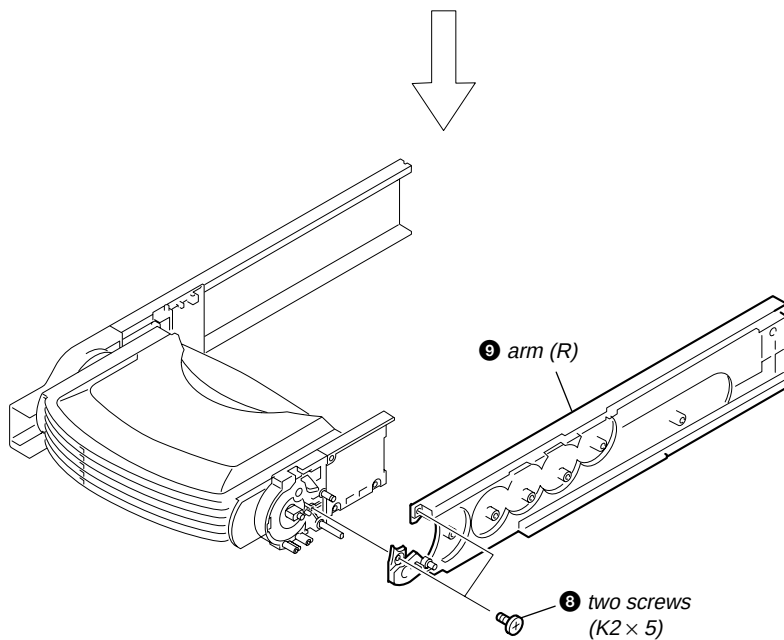
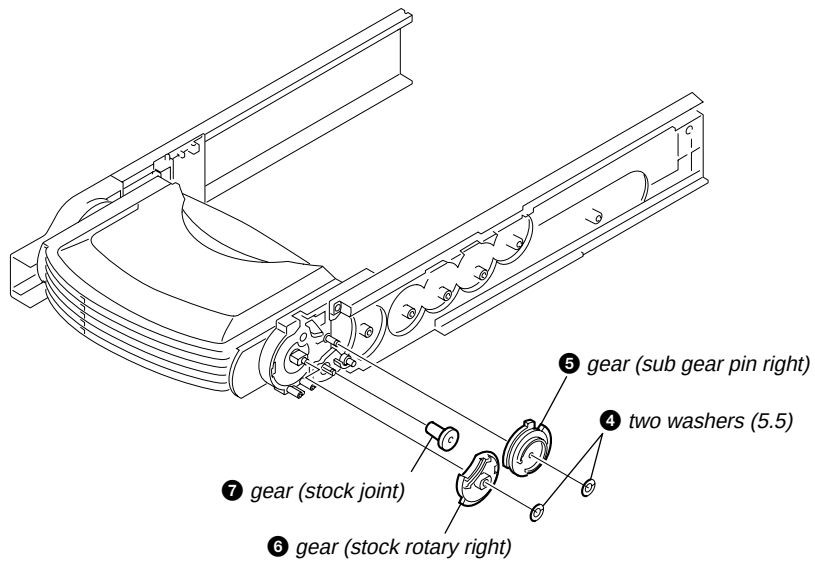
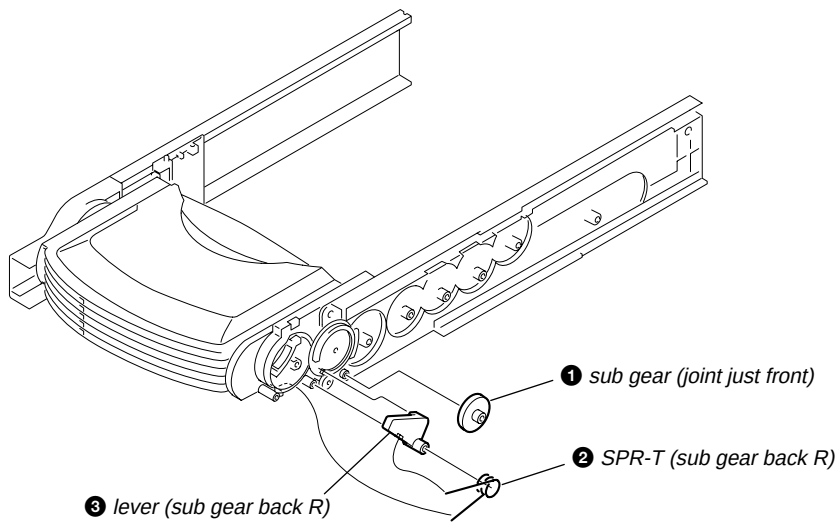
2-18. CD MECHANISM DECK SECTION



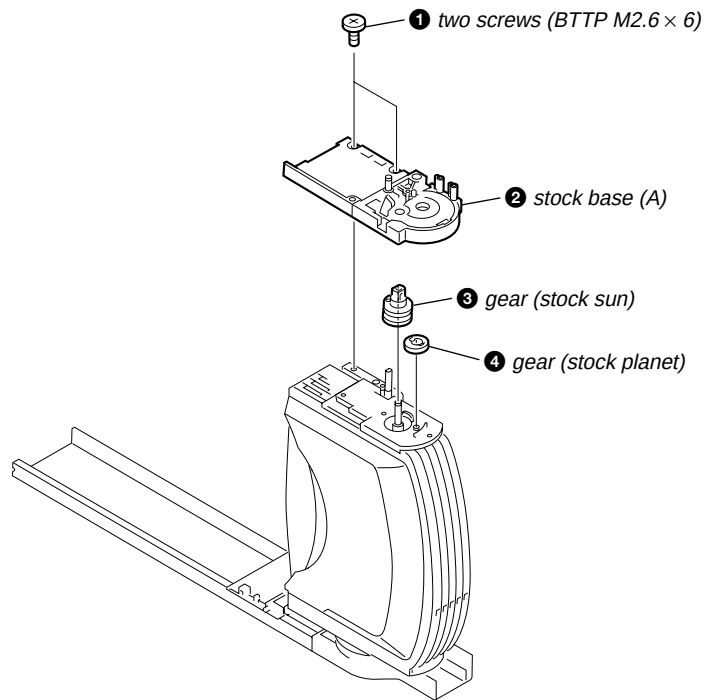
2-19. SUB GEAR (2 STEP), SUB SLIDER ASSY



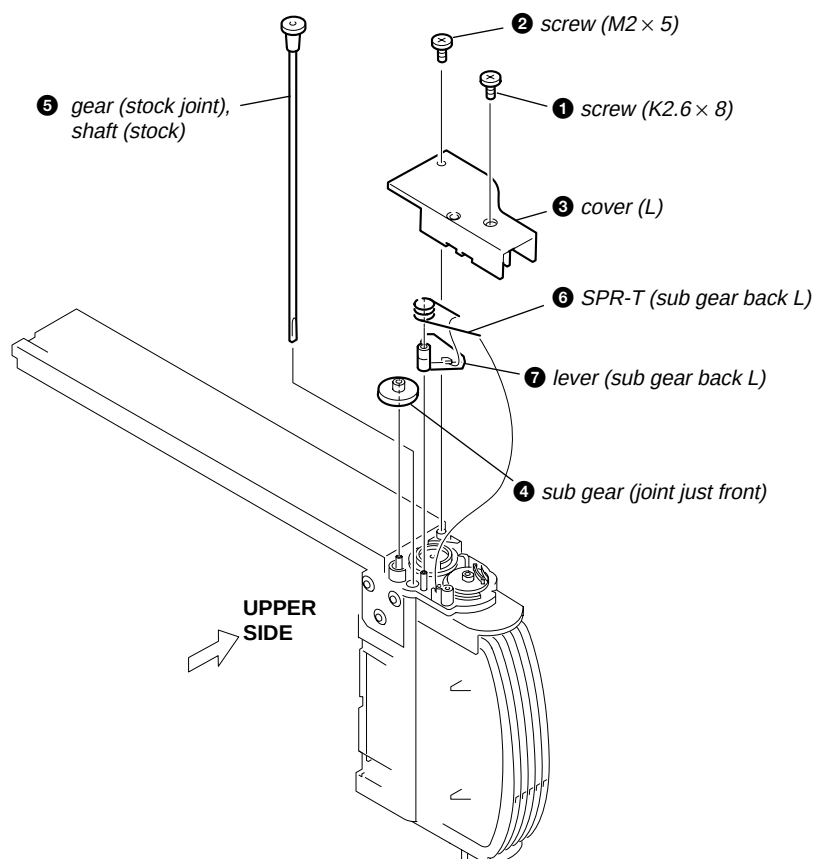
2-20. ARM (R)



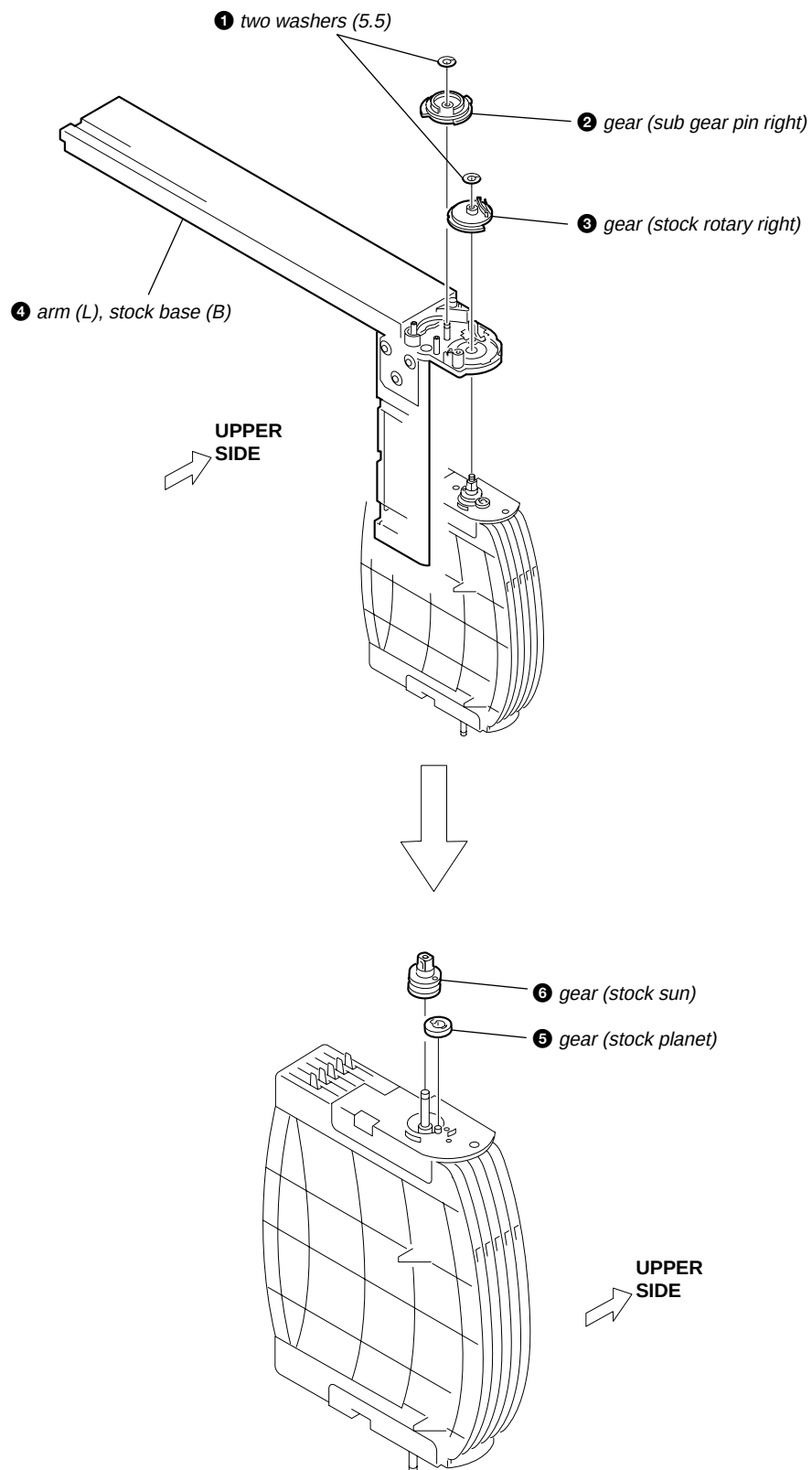
2-21. GEAR (STOCK PLANET) (RIGHT)



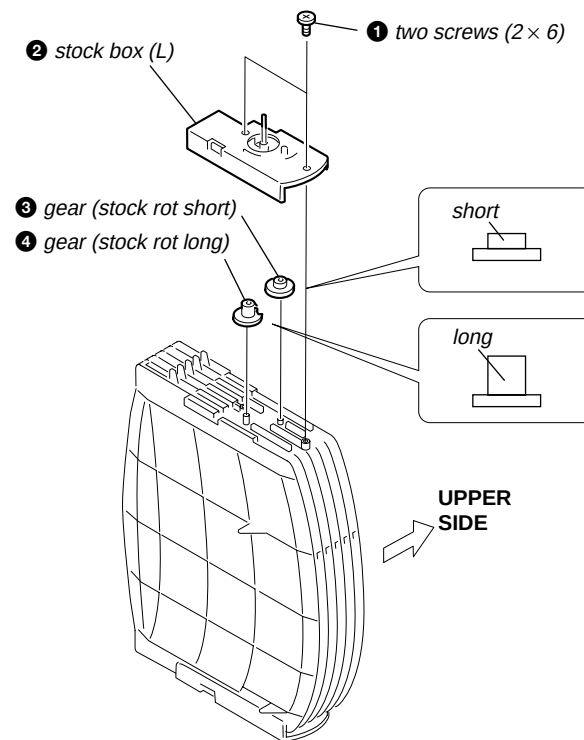
2-22. LEVER (SUB GEAR BACK L)



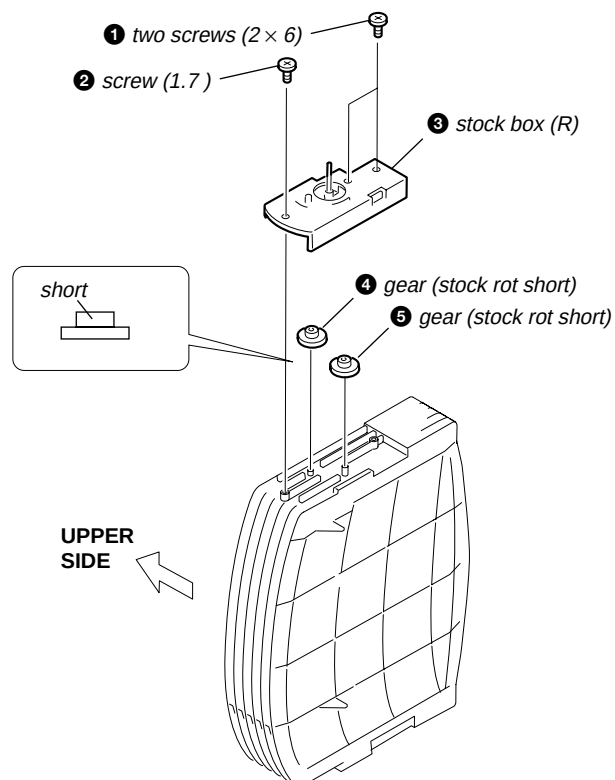
2-23. ARM (L)



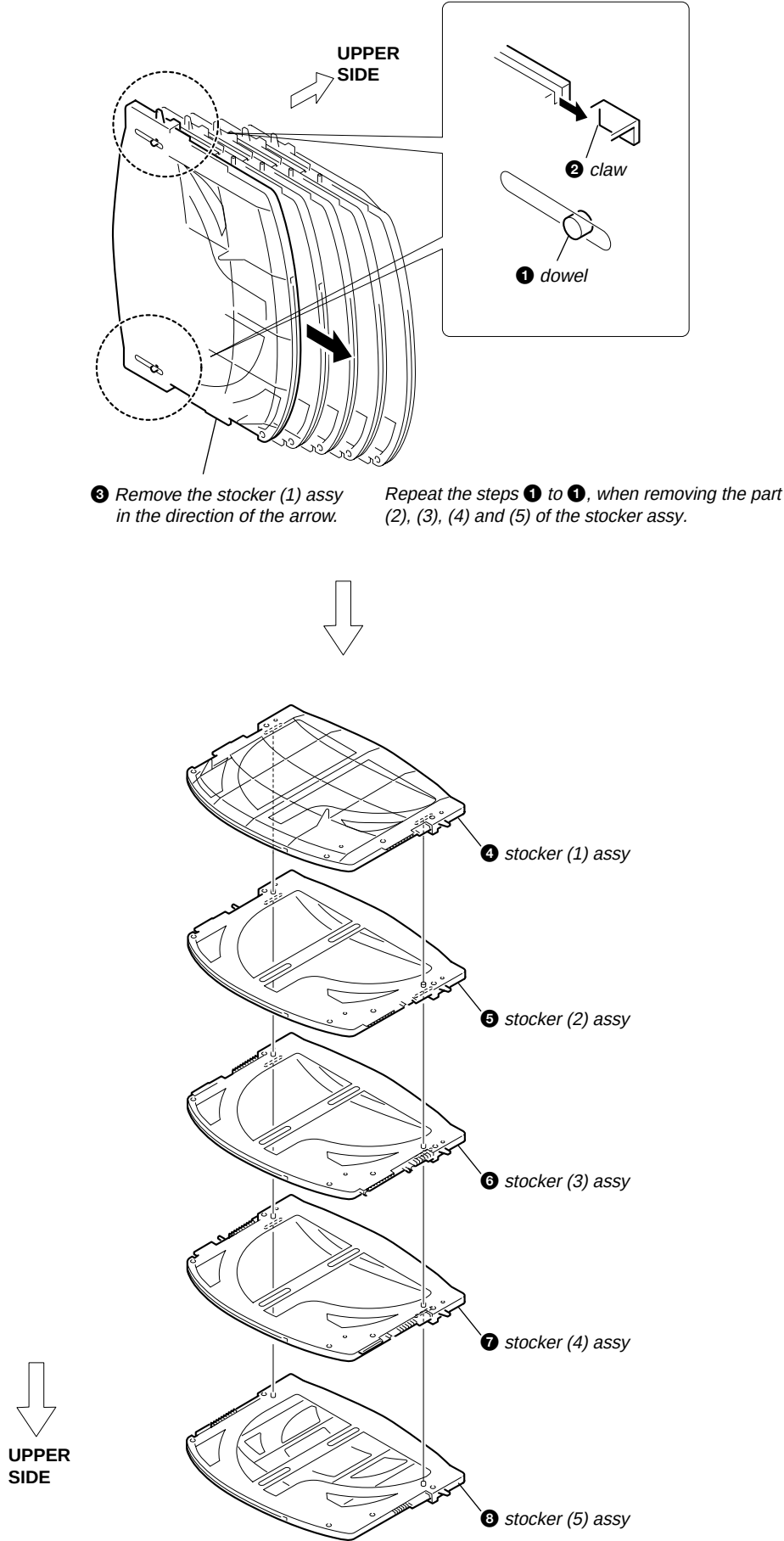
2-24. GEAR (STOCK ROT LONG) (LEFT)



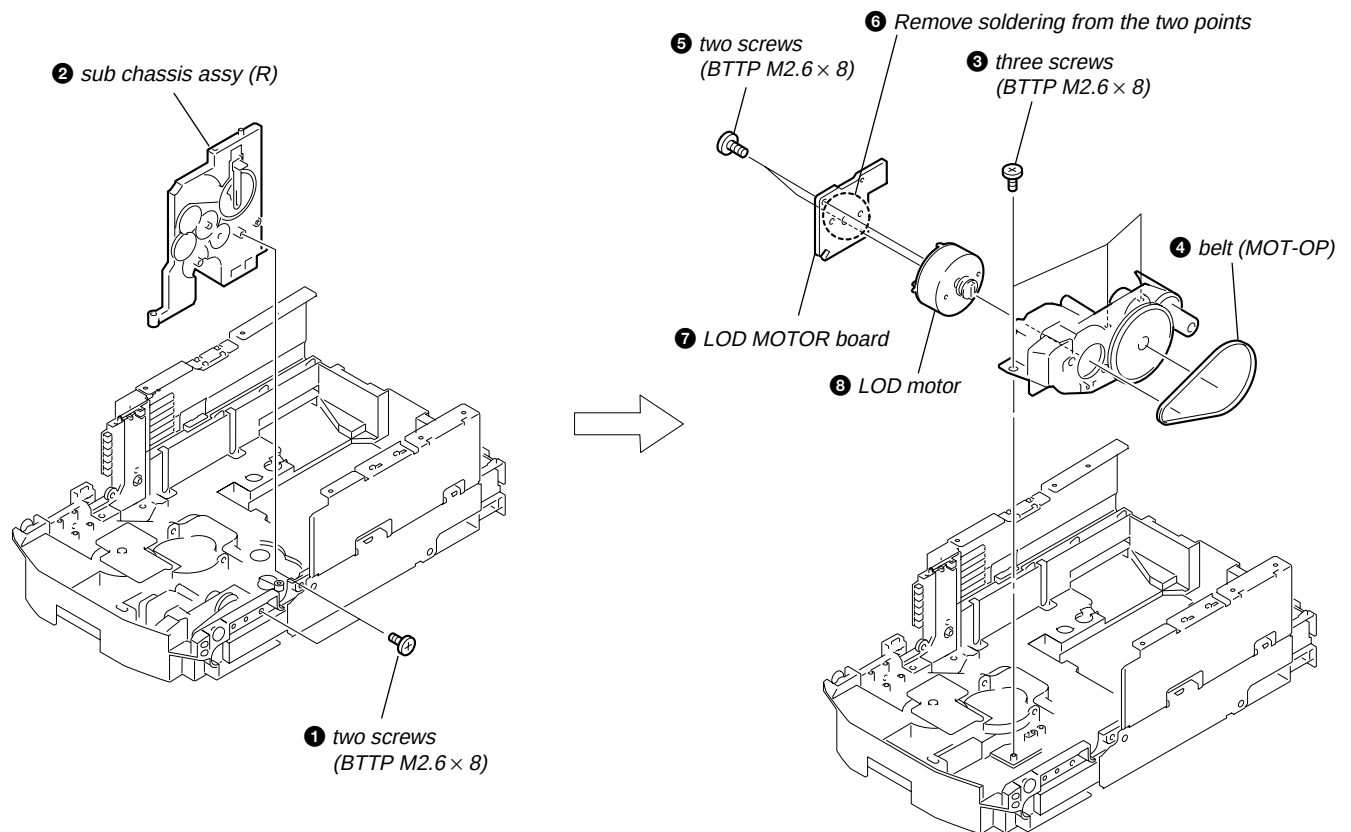
2-25. GEAR (STOCK ROT SHORT) (RIGHT)



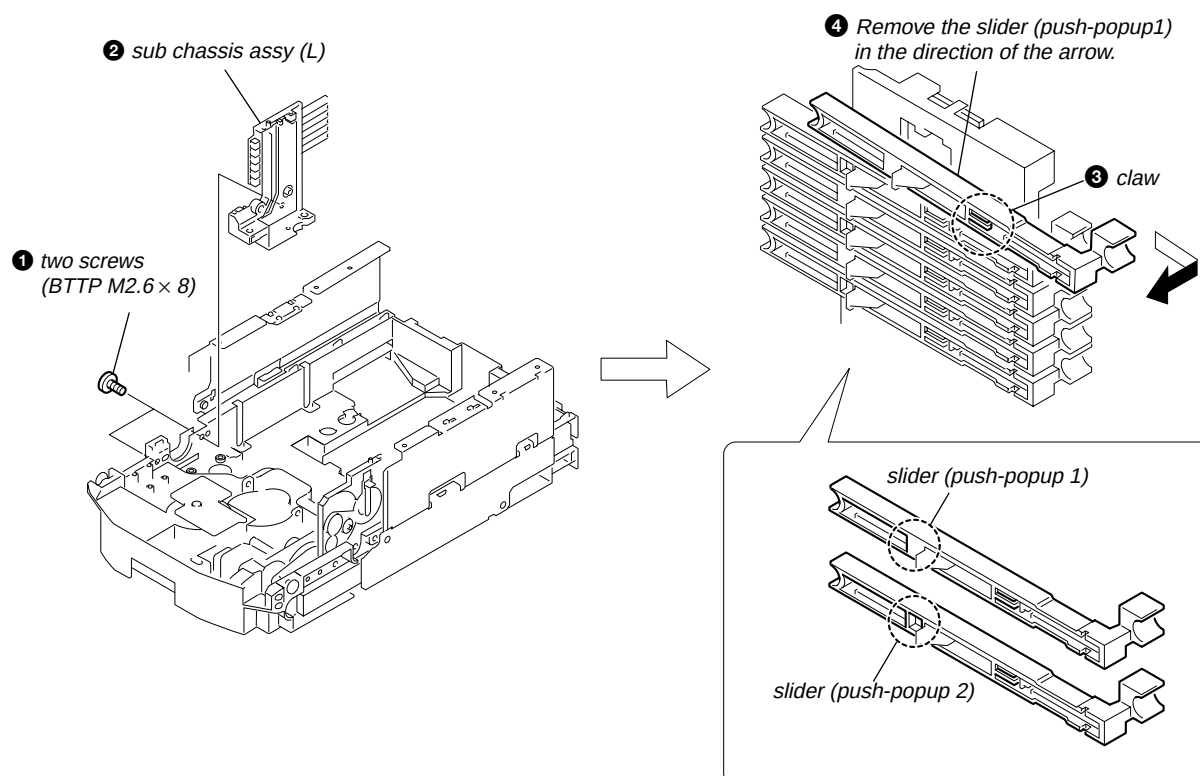
2-26. STOCKER (1) ASSY TO STOCKER (5) ASSY



2-27. LOD MOTOR

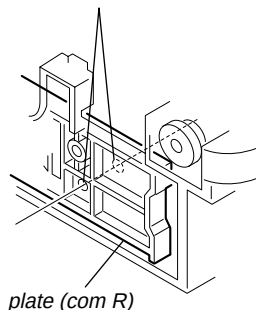


2-28. SLIDER (PUSH-POPUP)



2-29. ROTARY ENCODER

- ④ Rotate the ELV motor until the position for the hole on the chassis can be seen through the plate (comR).



- ① three screws
(BTP M2.6 × 6)

- ② RELAY board

- ③ Rotate the ELV motor in the direction of the arrow.

- ⑤ screw
(PTPWH2.6 × 8)

- ⑦ screw
(PTPWH2.6 × 8)

- ⑥ gear (pulley UD)

- ⑨ screw
(PTPWH2.6 × 8)

- ⑧ gear (geneva 2)

- ⑪ screw
(PTPWH2.6 × 8)

- ⑩ gear (geneva 1)

- ⑬ step tapping screw
(PWH2 × 6)

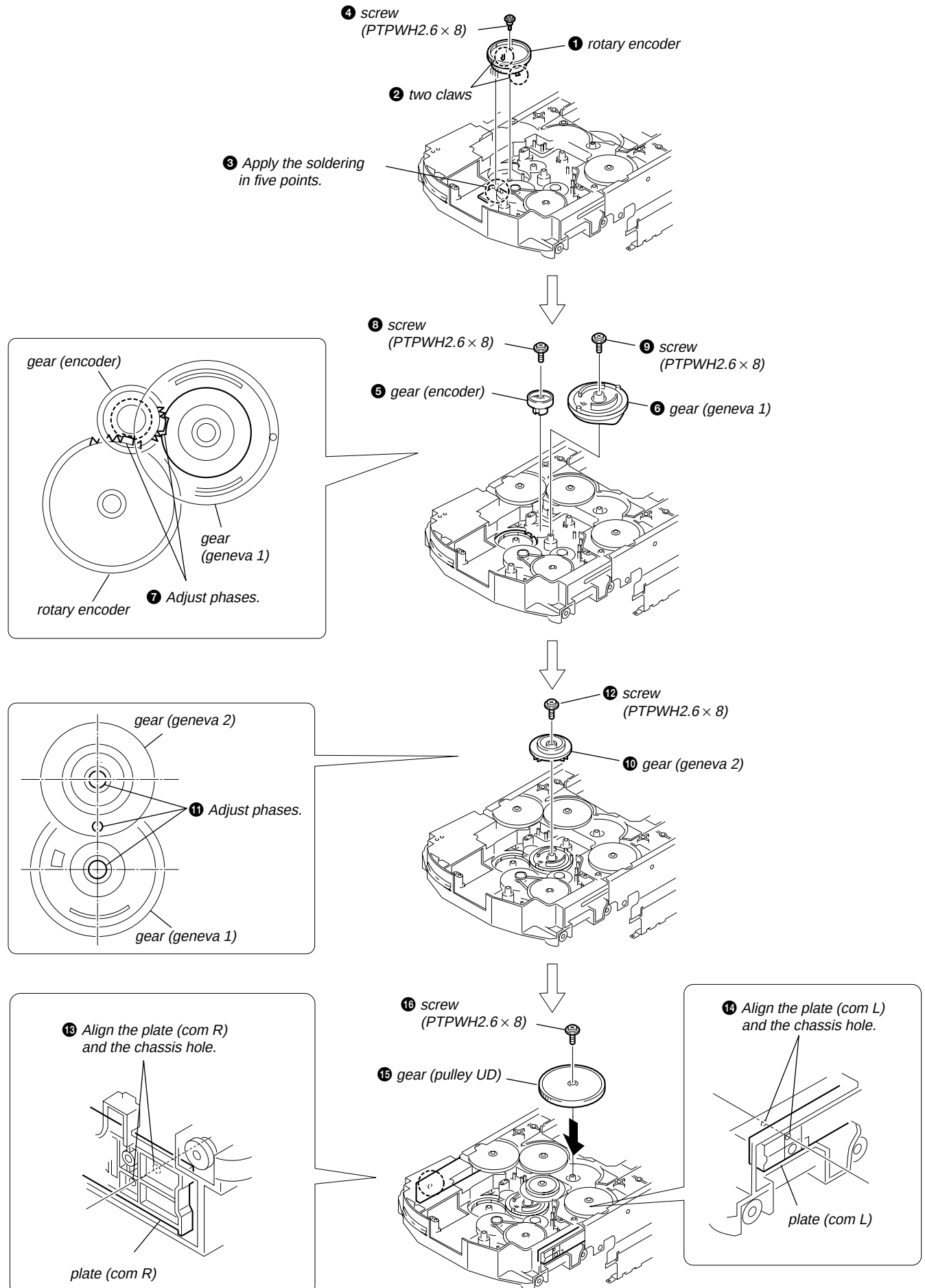
- ⑫ gear (encoder)

- ⑮ rotary encoder

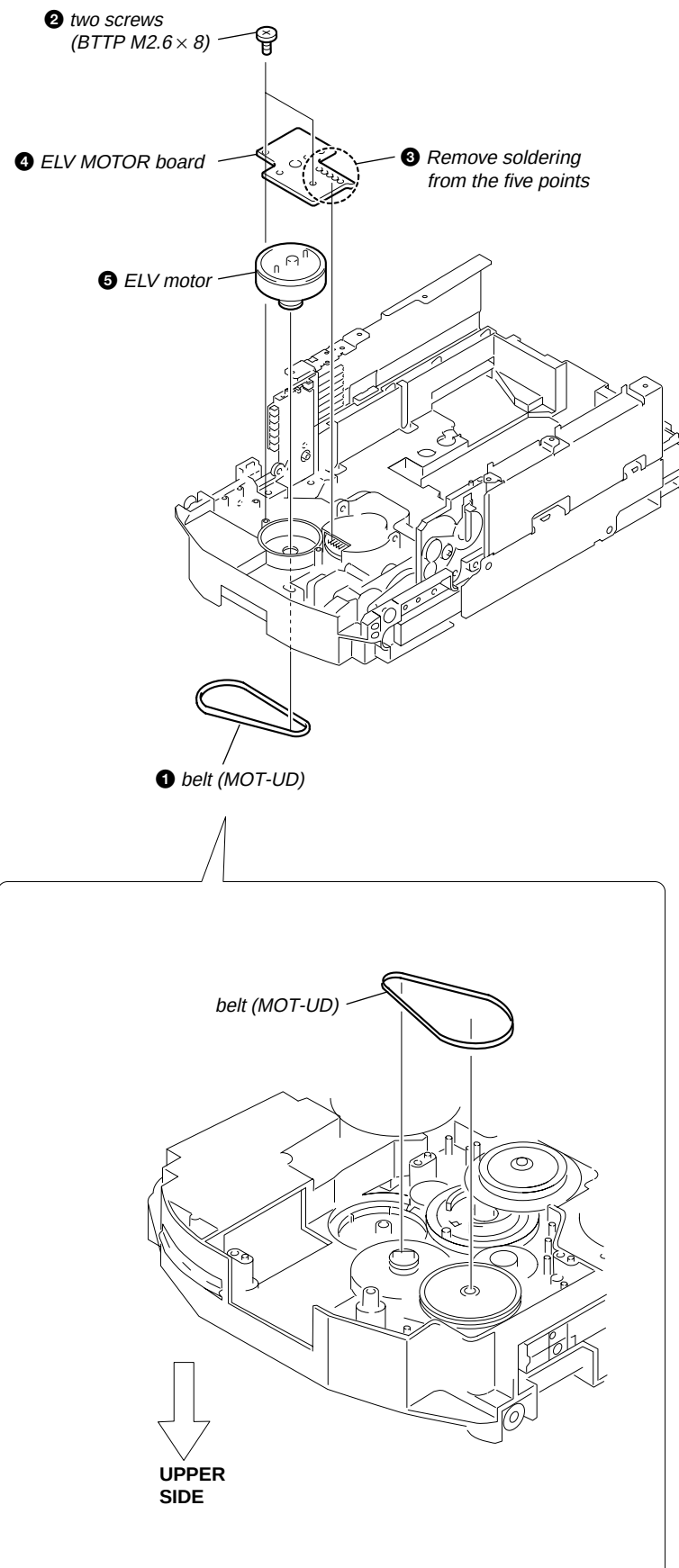
- ⑮ two claws

- ⑭ Remove soldering
from the five points

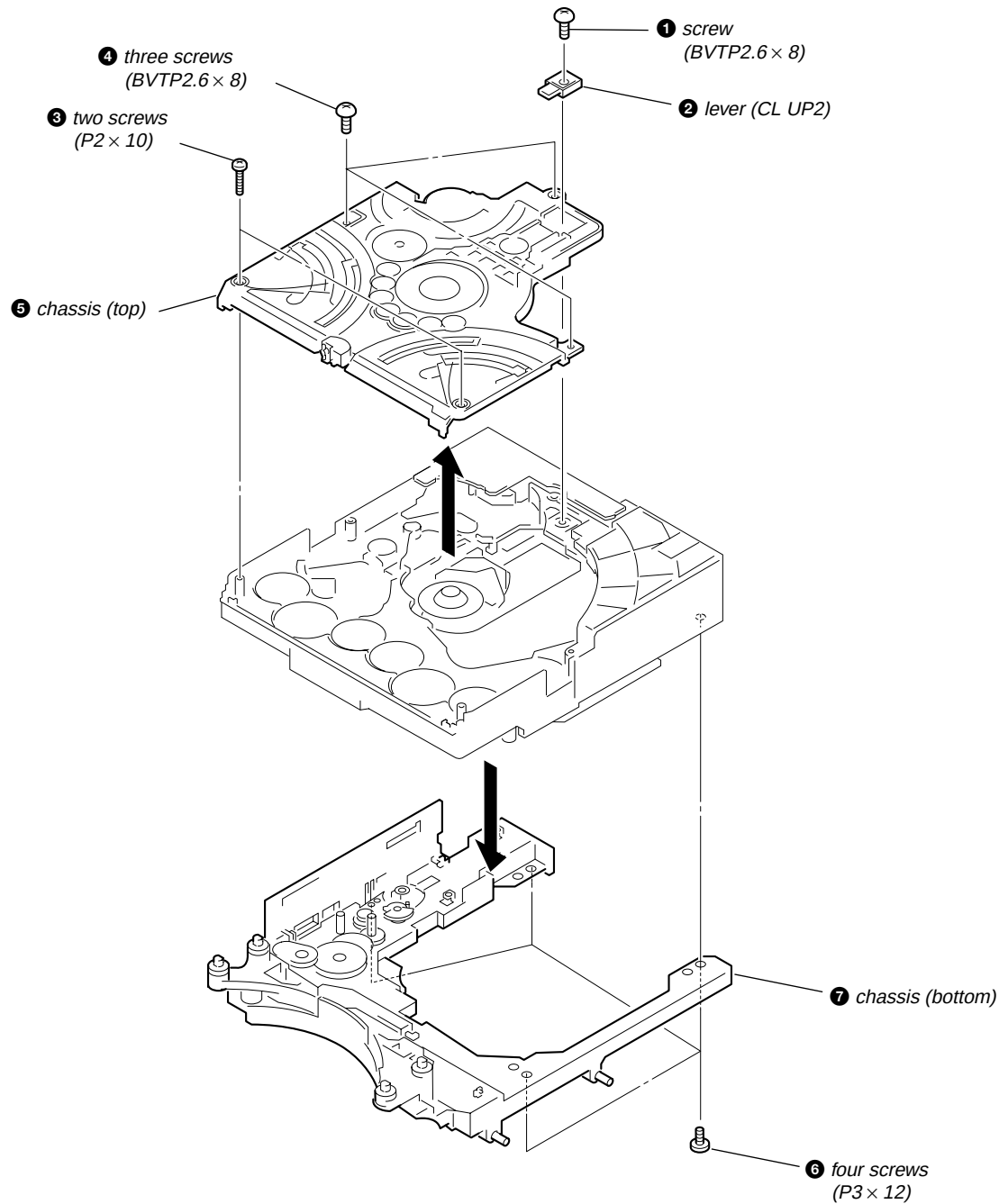
2-30. ASSEMBLING OF THE ROTARY ENCODER



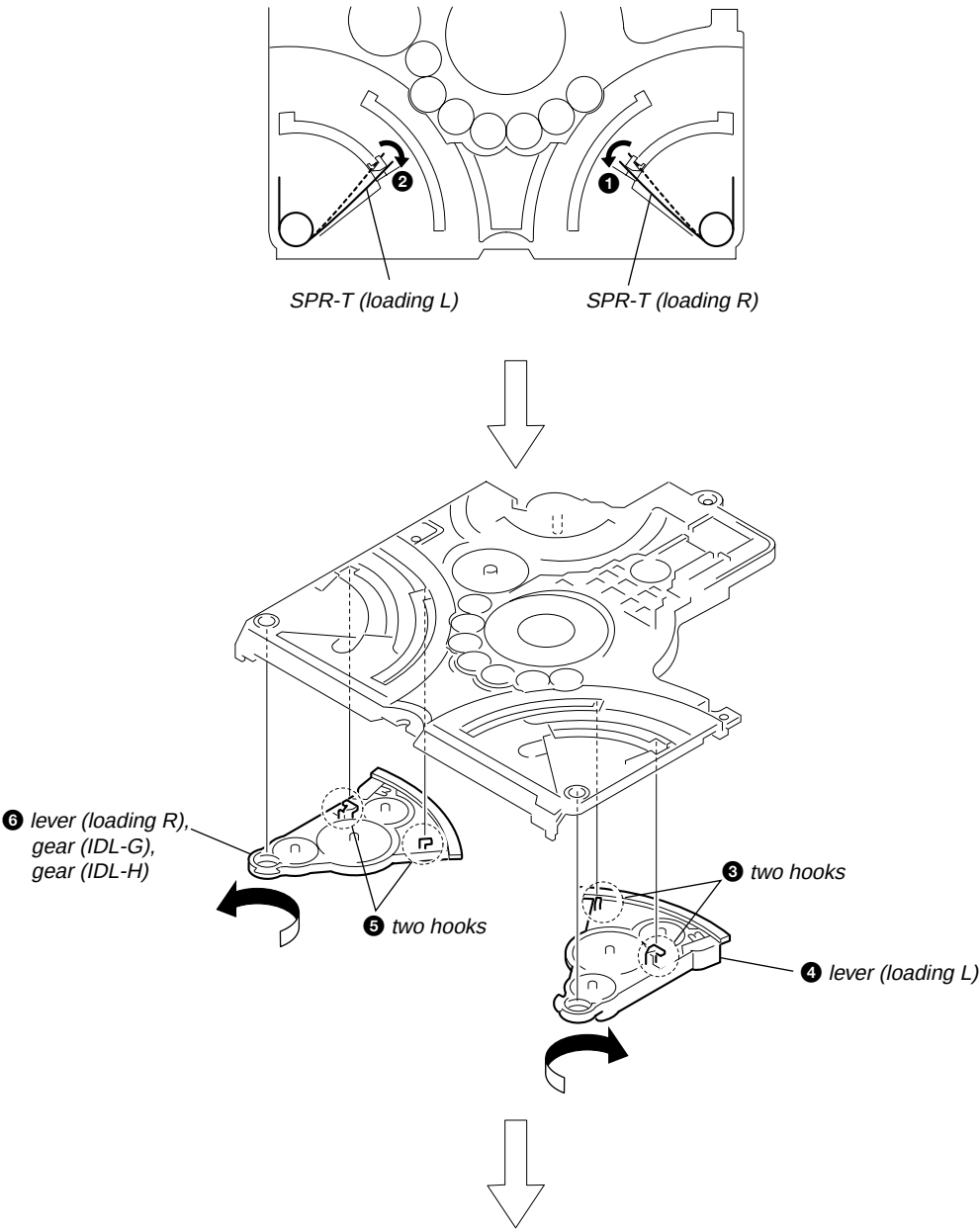
2-31. ELV MOTOR



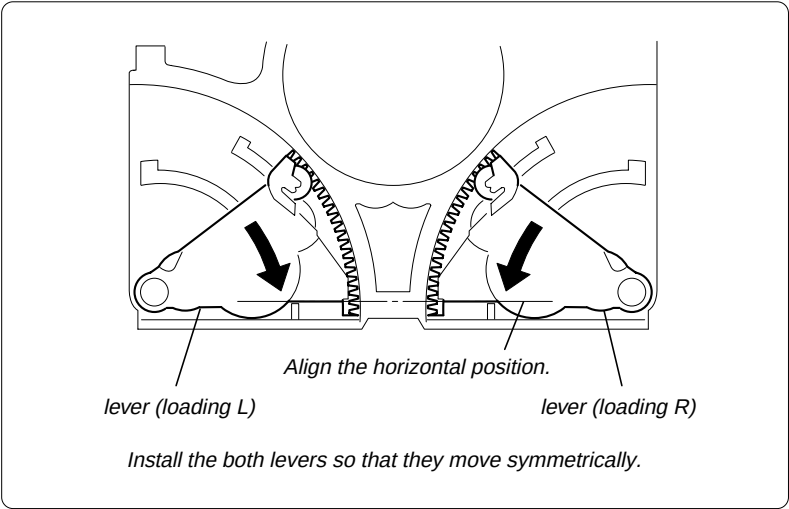
2-32. CHASSIS (TOP), CHASSIS (BOTTOM)



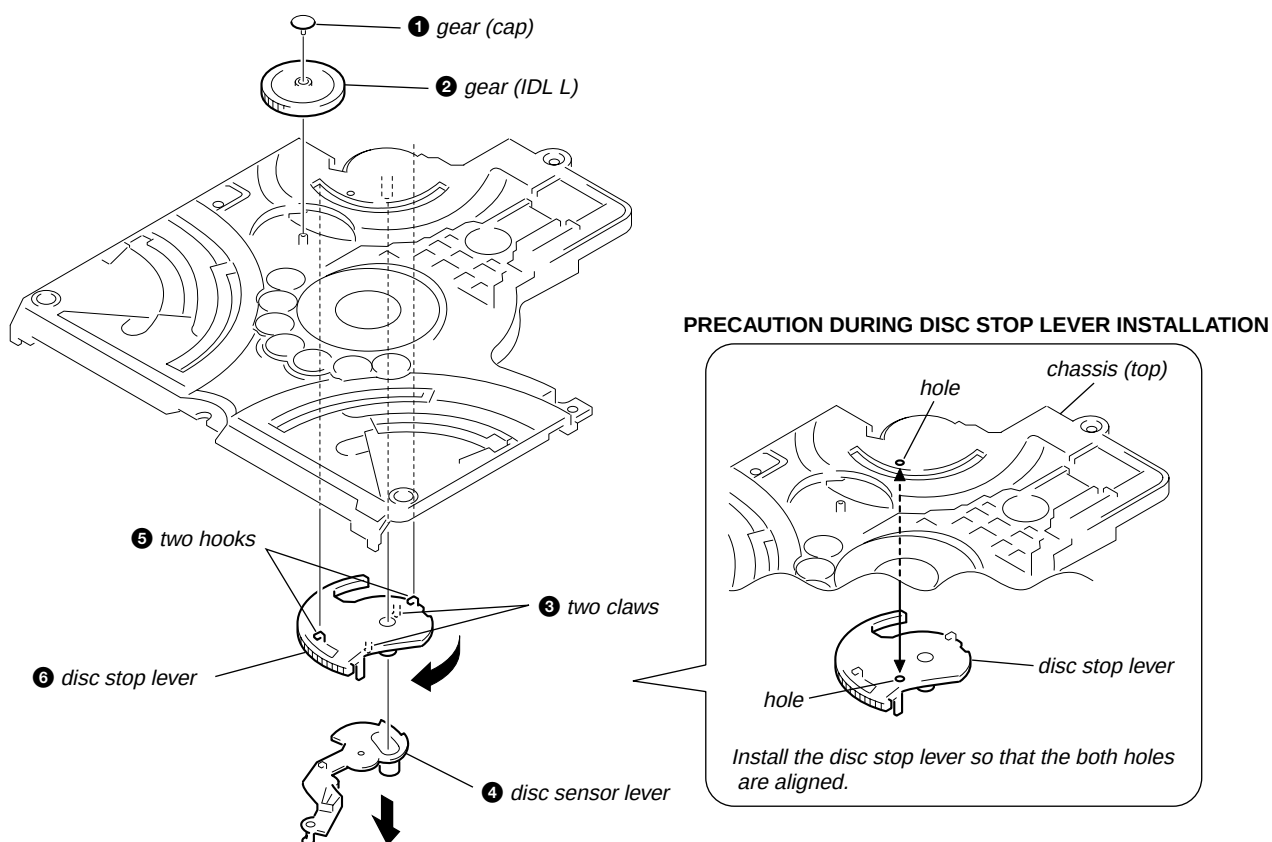
2-33. LEVER (LOADING R, LOADING L)



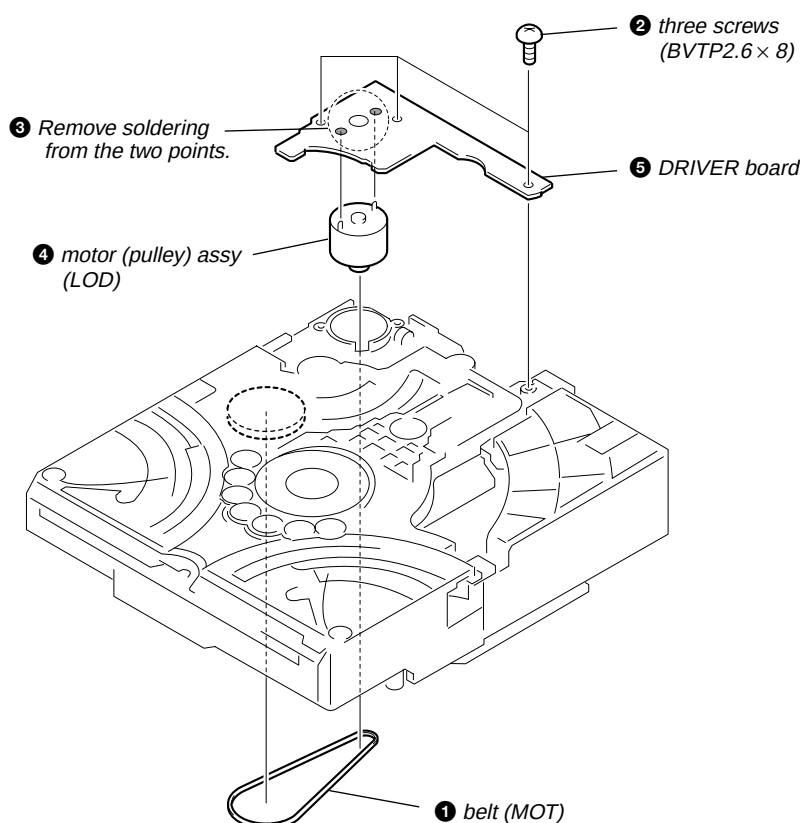
PRECAUTION DURING LEVER (LOADING R/L) INSTALLATION



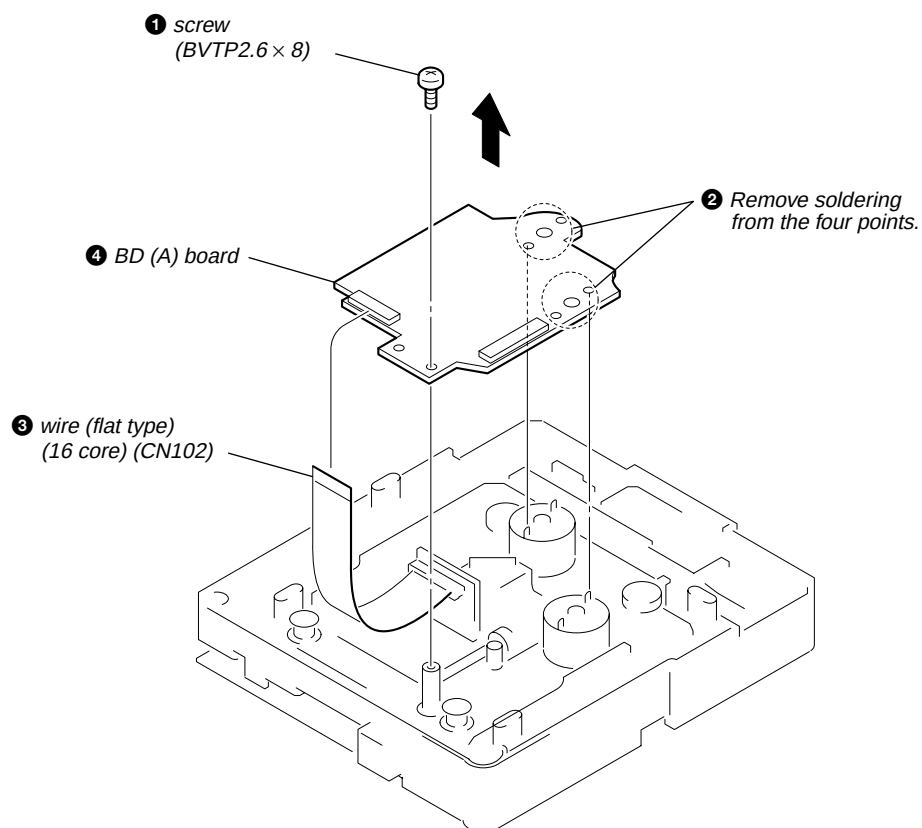
2-34. DISC STOP LEVER



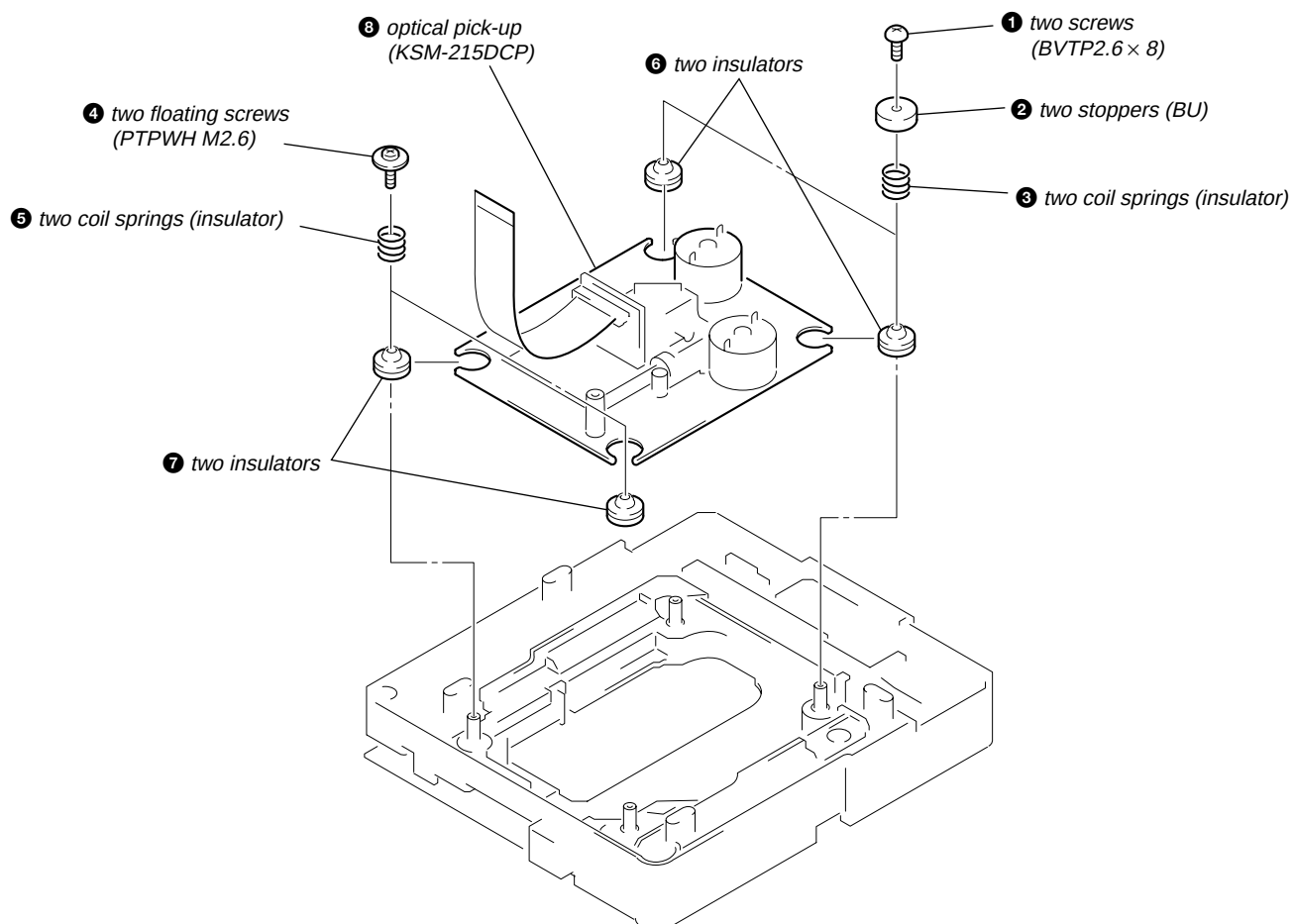
2-35. DRIVER BOARD



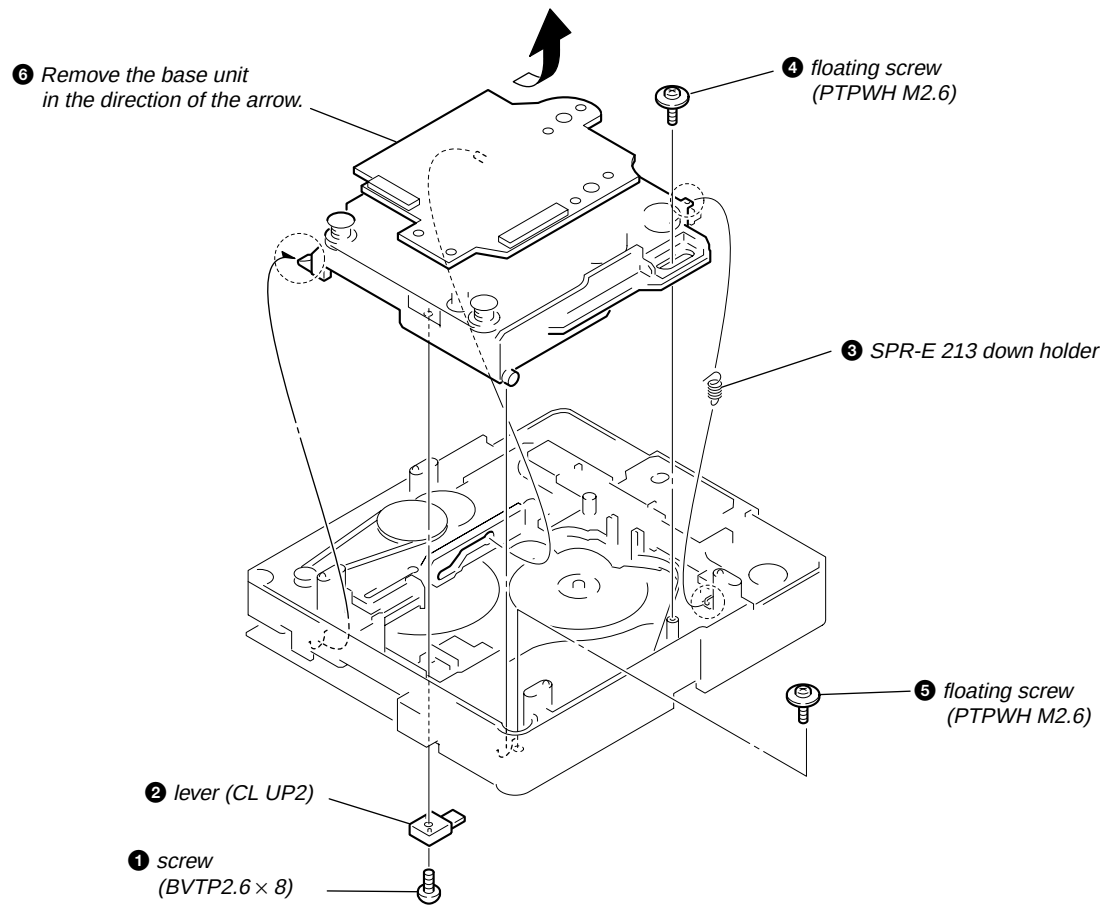
2-36. BD BOARD (A)



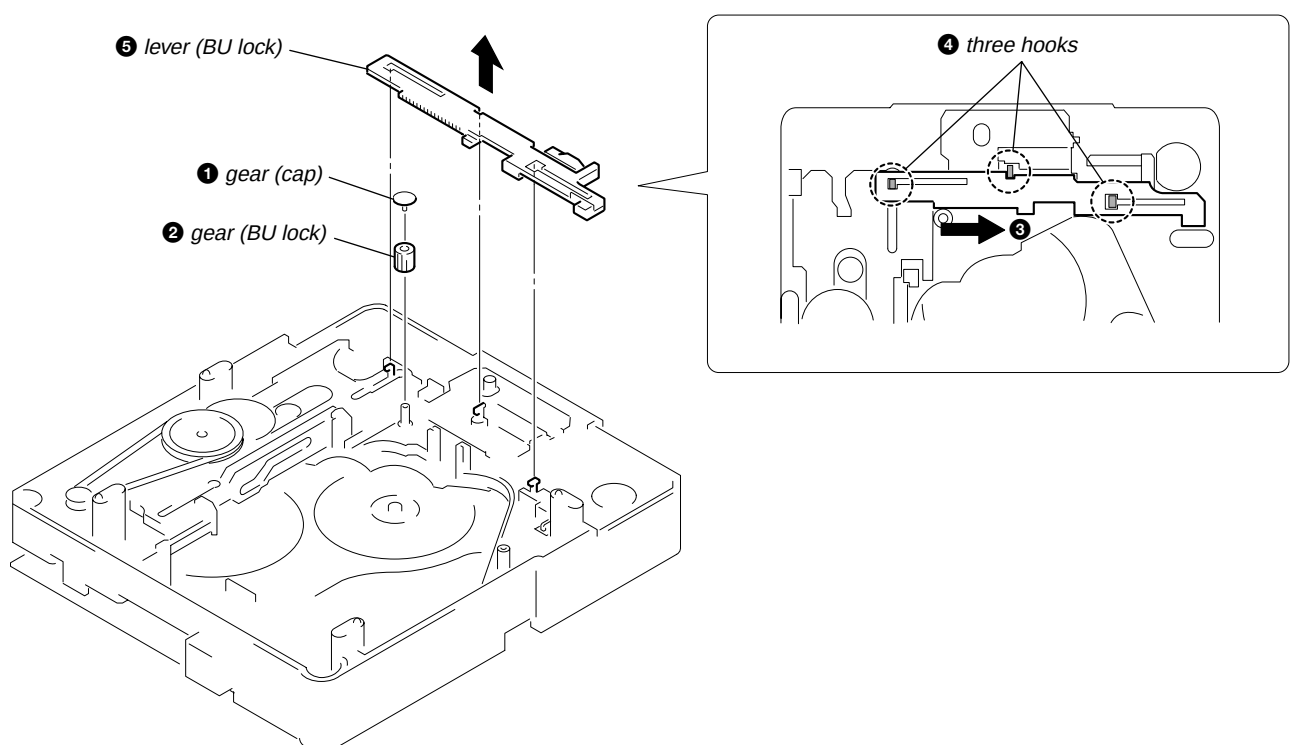
2-37. OPTICAL PICK-UP (KSM-215DCP)



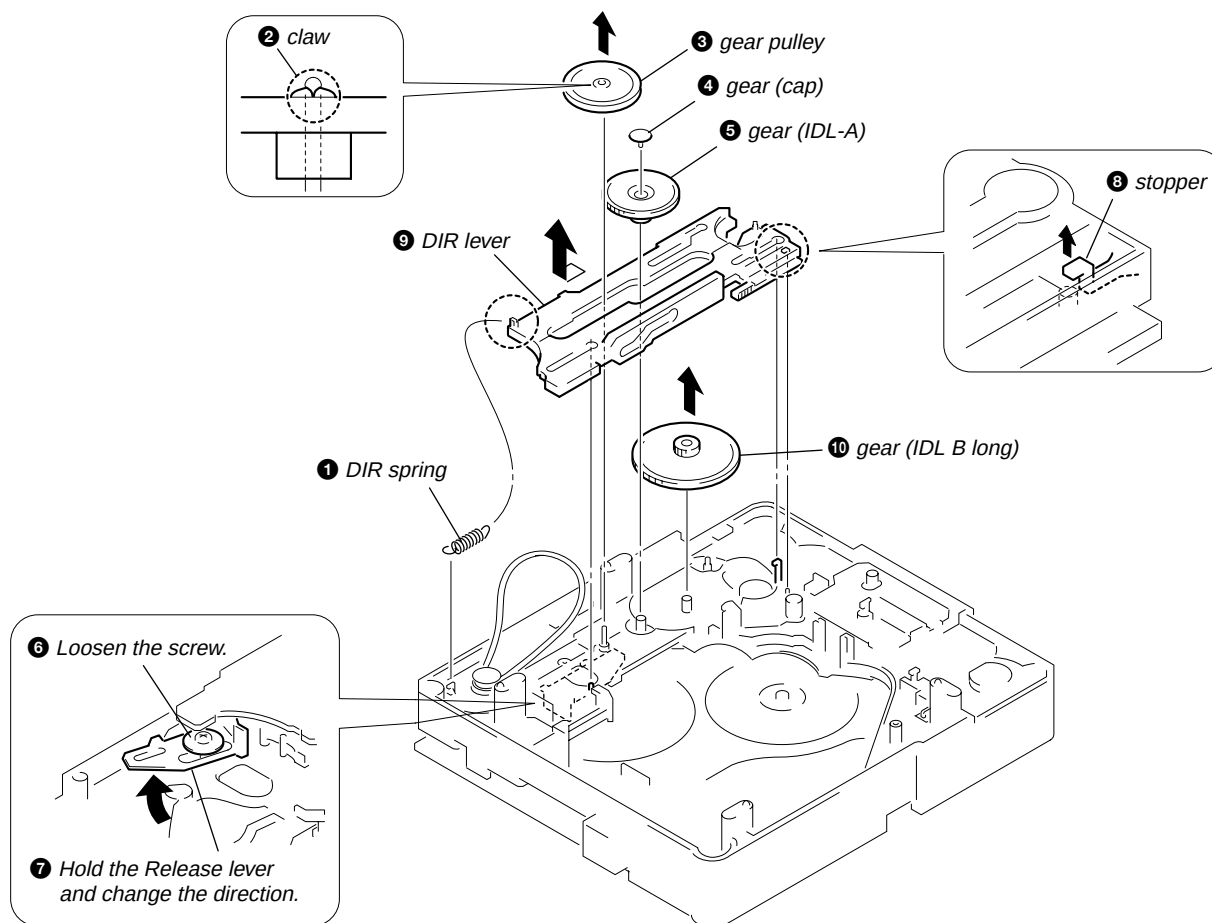
2-38. BASE UNIT SECTION



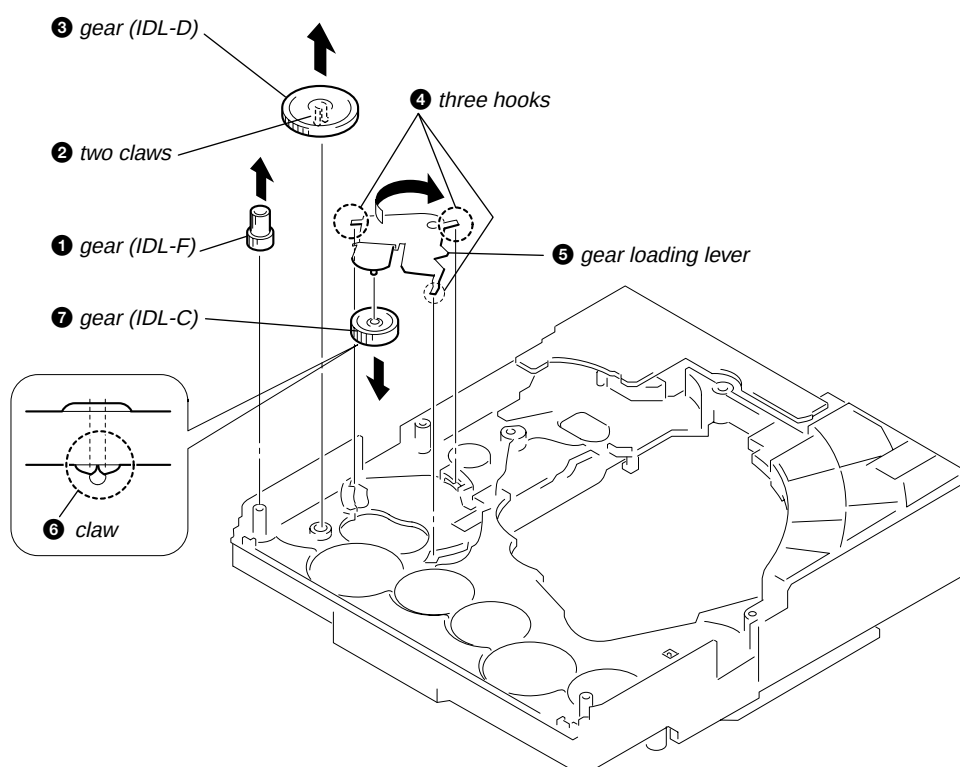
2-39. LEVER (BU LOCK)



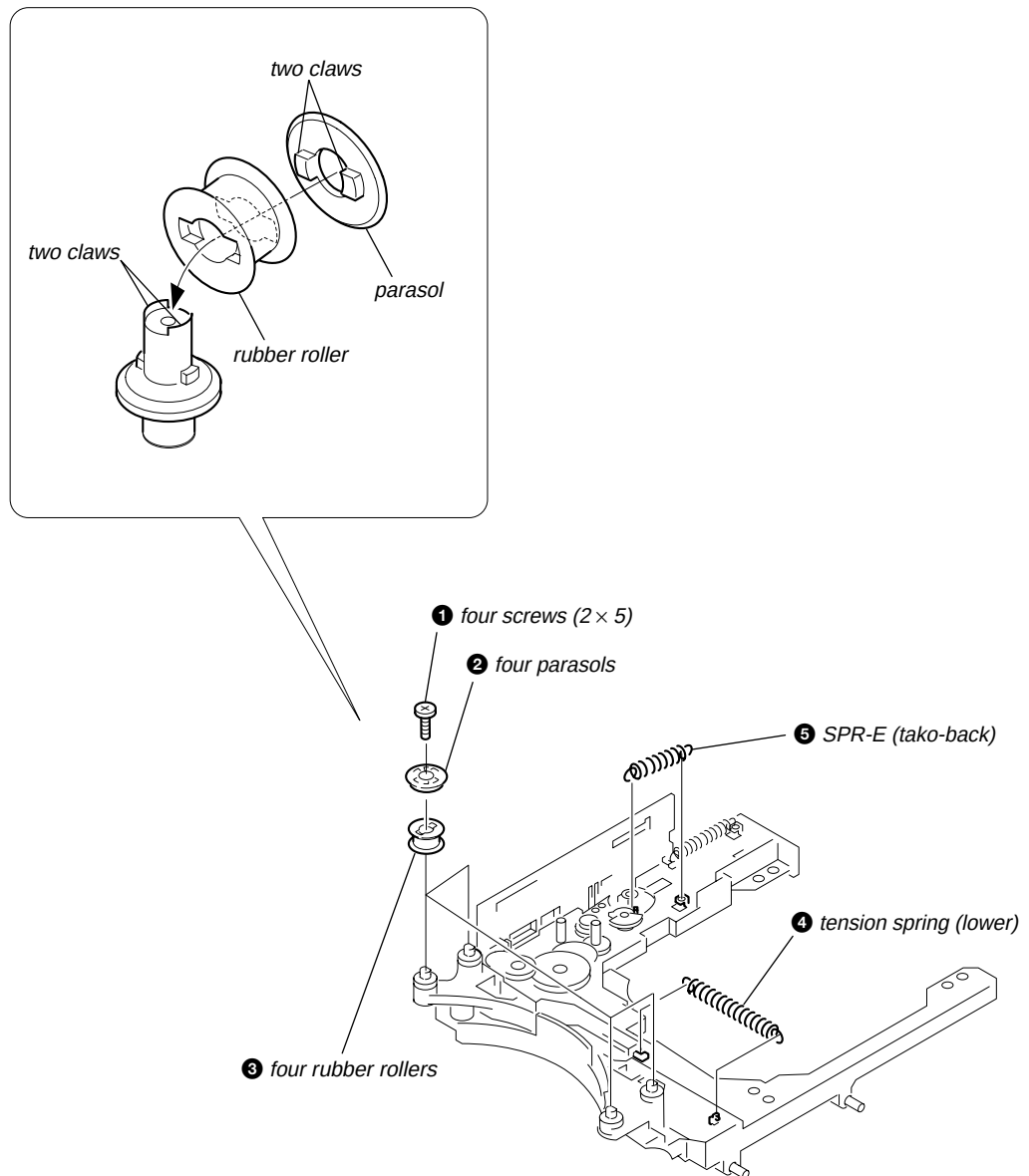
2-40. GEAR (IDL-B)



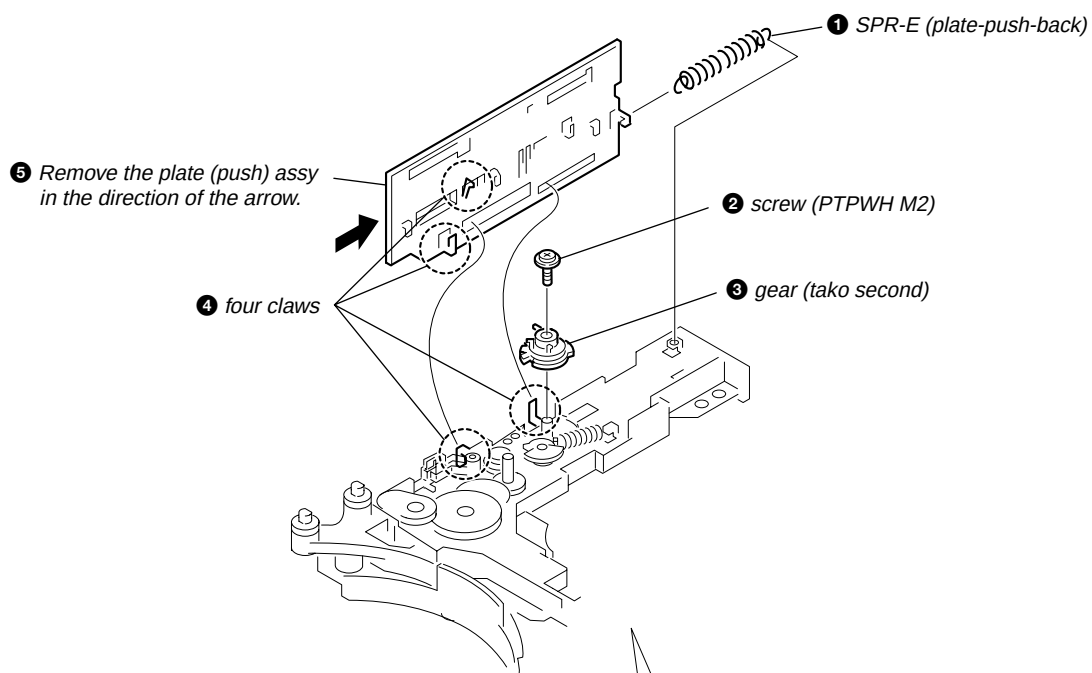
2-41. GEAR (IDL-C)



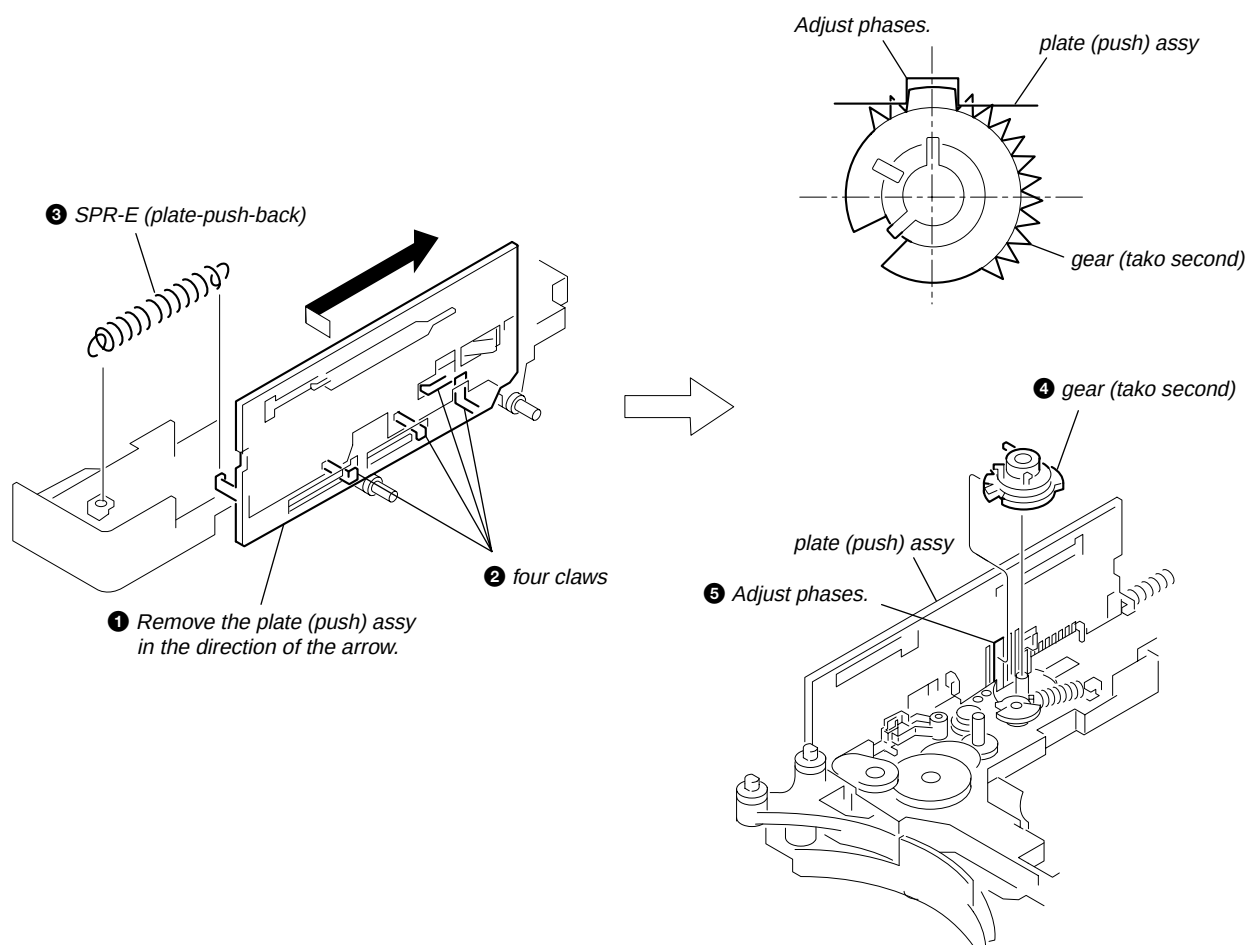
2-42. SPR-E (TAKO-BACK)



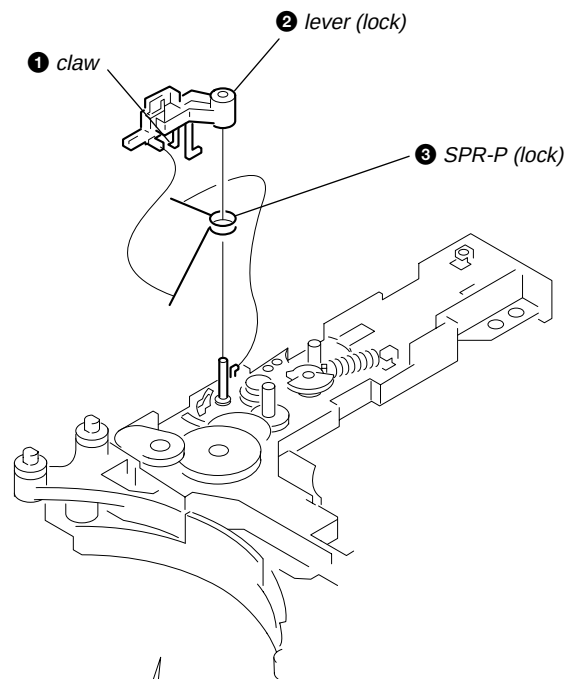
2-43. PLATE (PUSH) ASSY



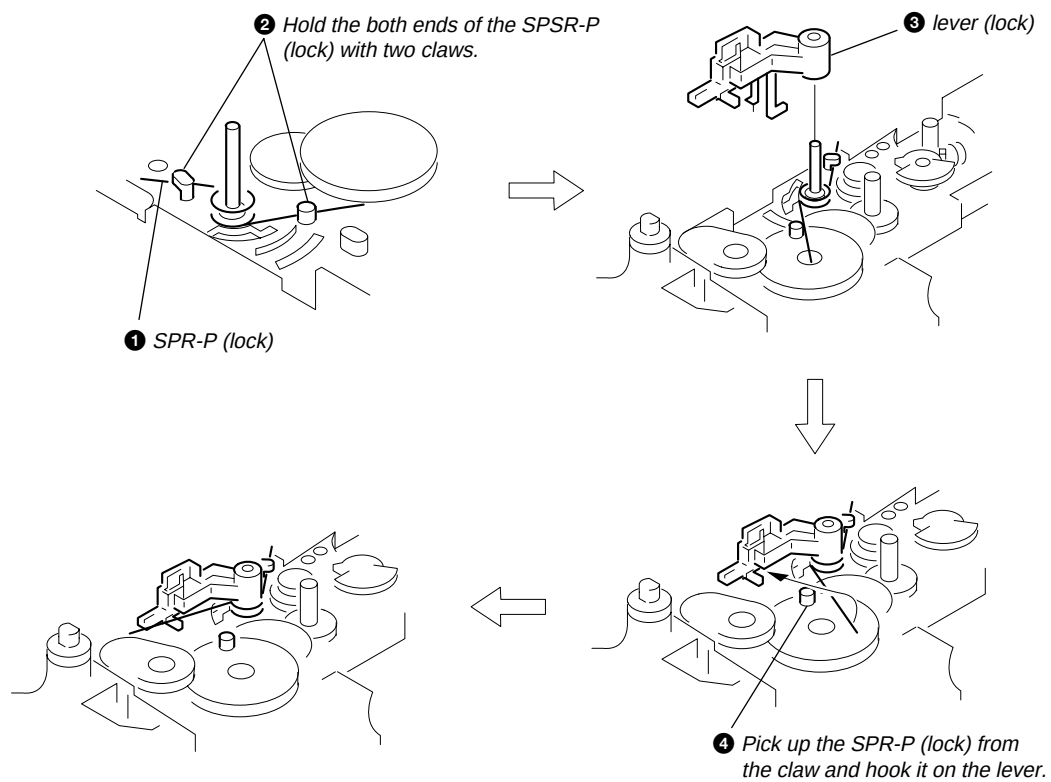
PRECAUTION DURING GEAR (TAKO SECOND) INSTALLATION



2-44. SPR-P (LOCK)



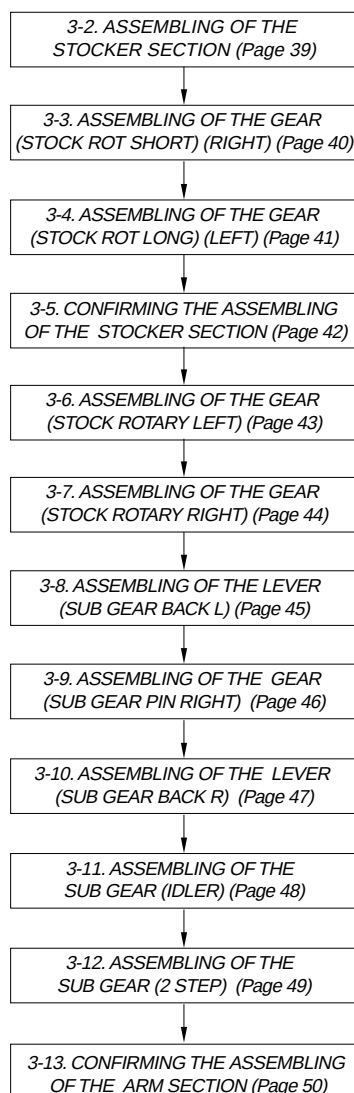
PRECAUTION DURING LEVER INSTALLATION



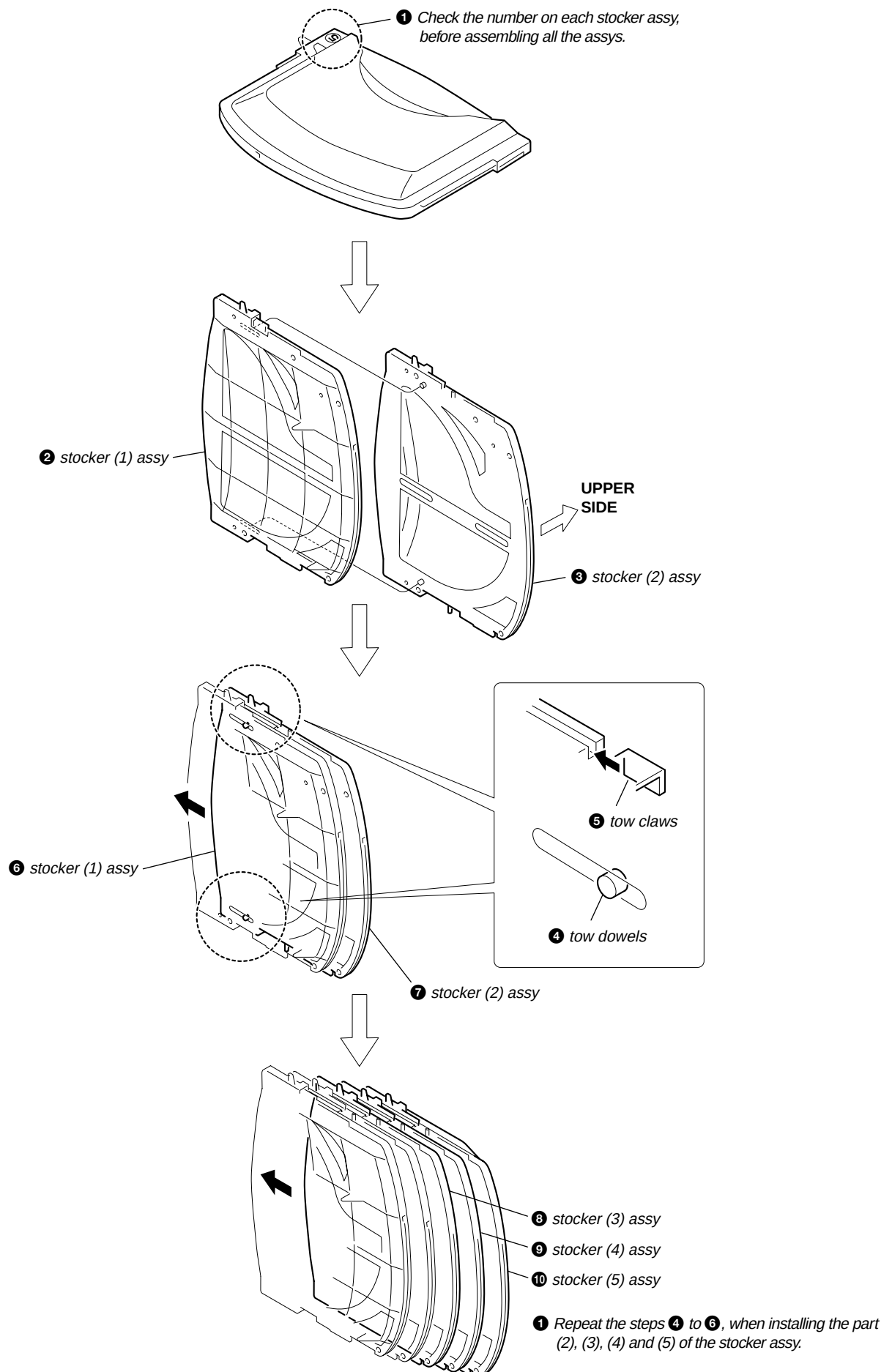
SECTION 3 ASSEMBLY

- This is can be assemble according to the following sequence.

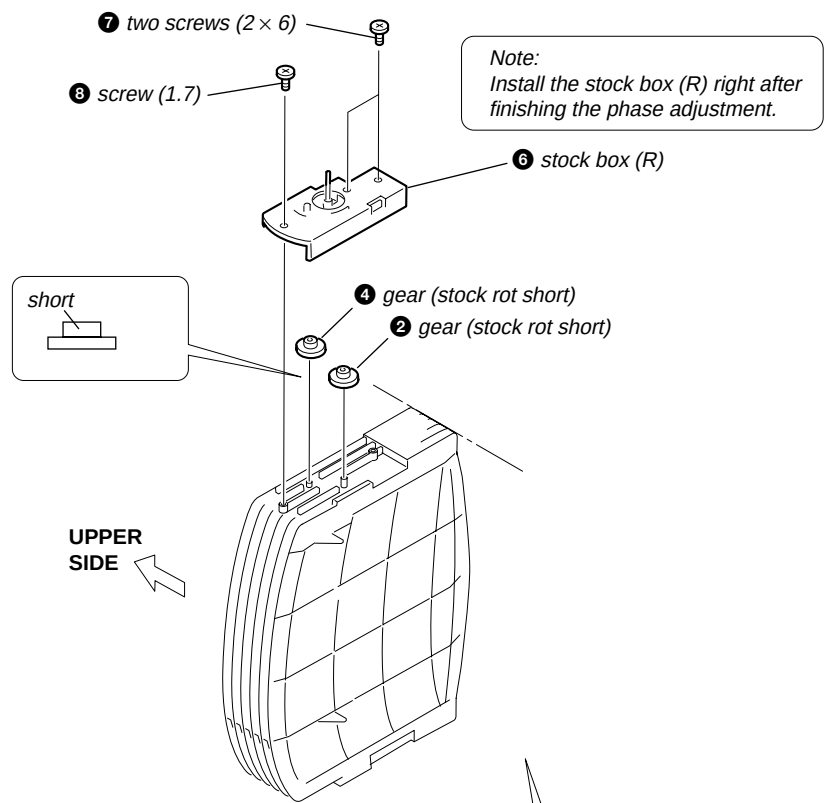
3-1. ASSEMBLY FLOW



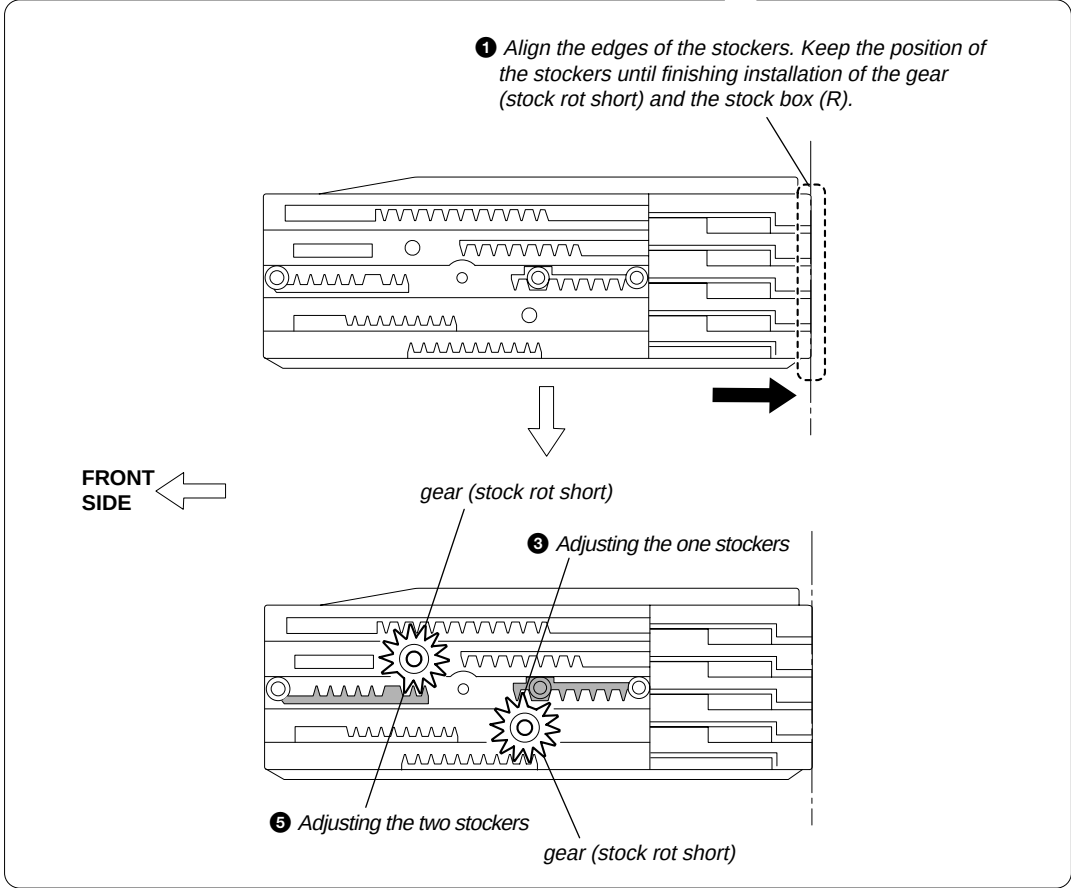
3-2. ASSEMBLING OF THE STOCKER SECTION



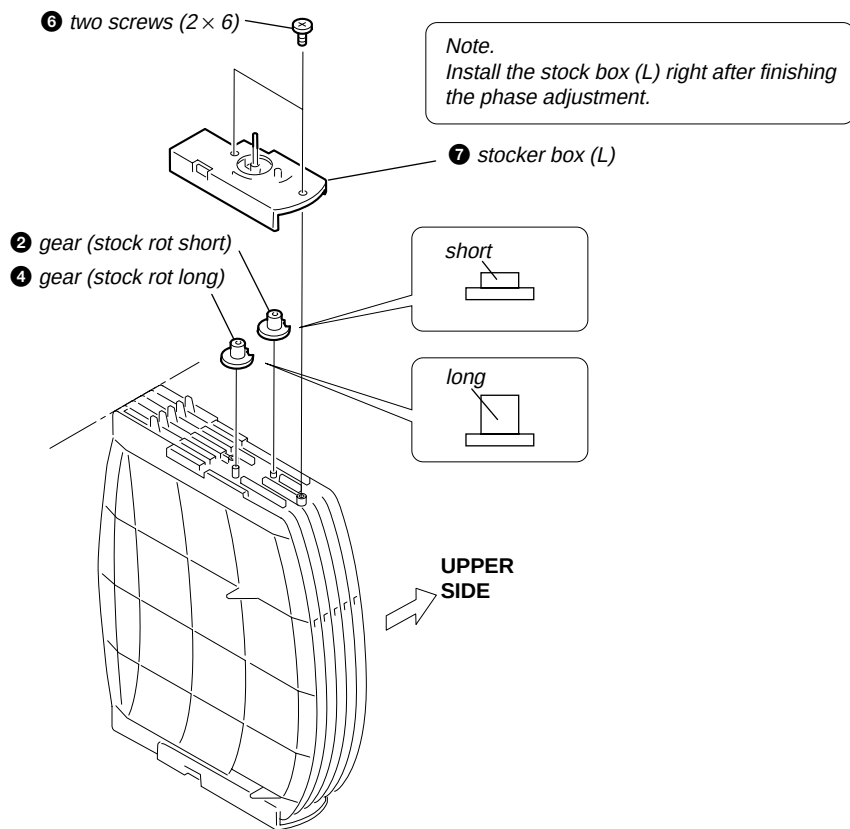
3-3. ASSEMBLING OF THE GEAR (STOCK ROT SHORT) (RIGHT)



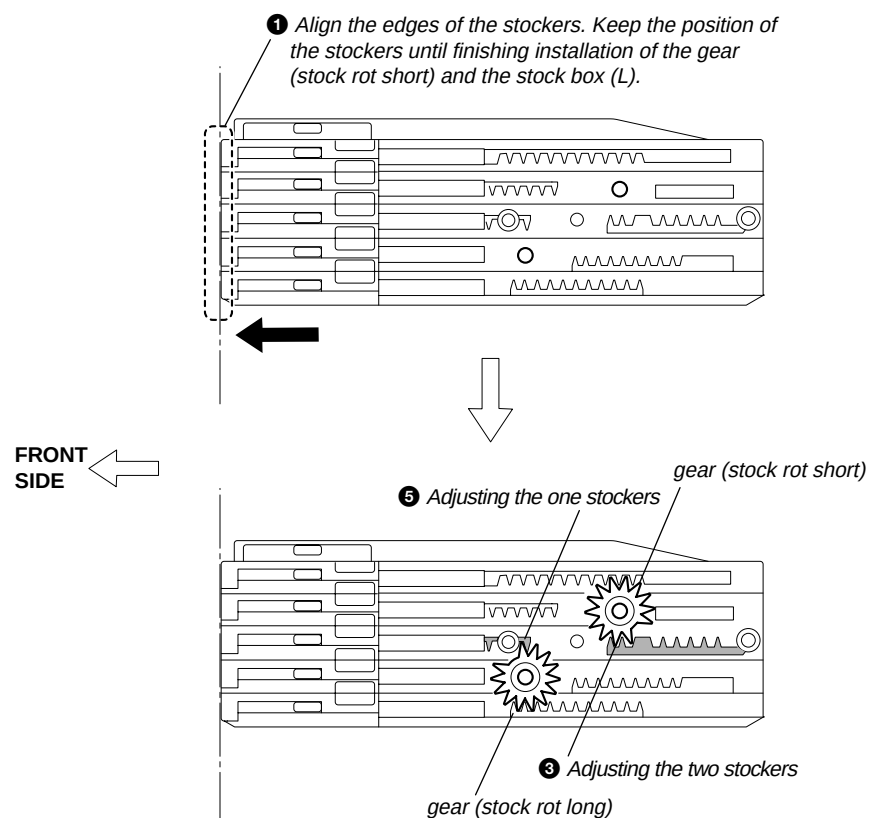
PRECAUTION DURING GEAR (STOCK ROT SHORT) INSTALLATION



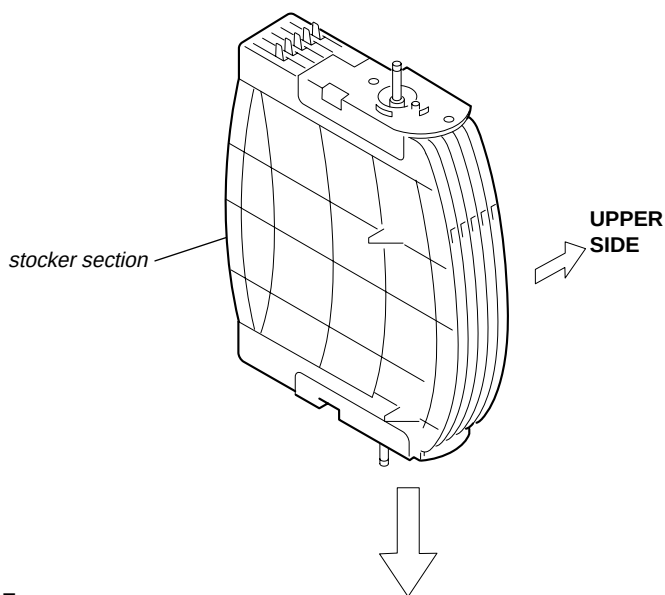
3-4. ASSEMBLING OF THE GEAR (STOCK ROT LONG) (LEFT)



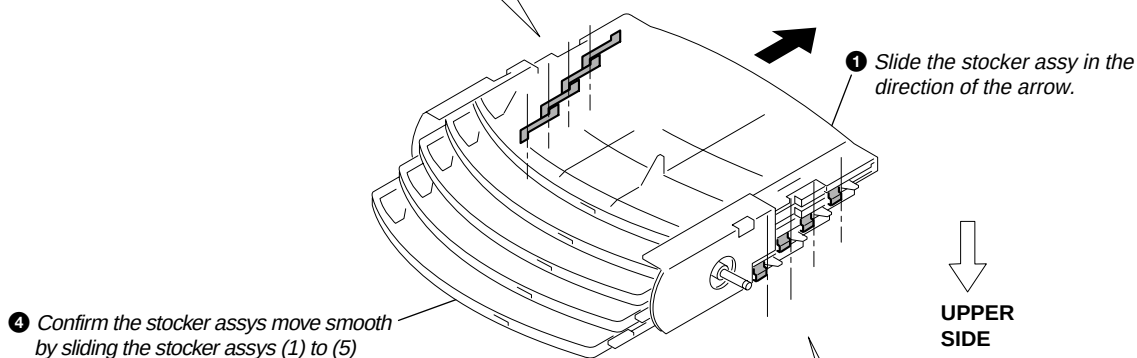
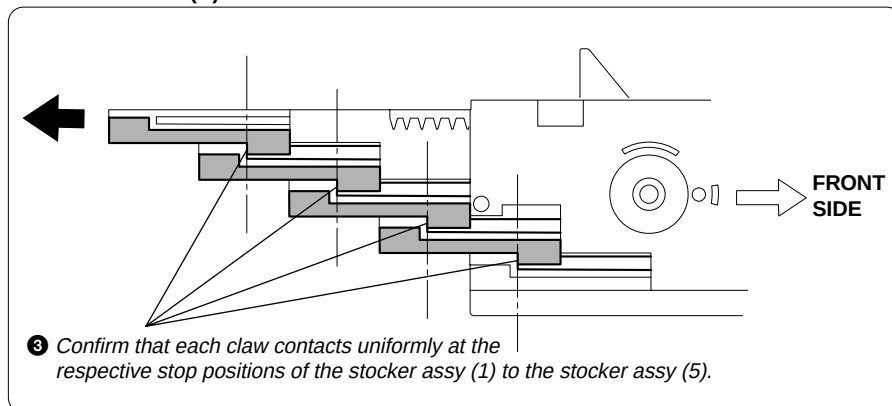
PRECAUTION DURING GEAR (STOCK ROT SHORT, STOCK ROT SHORT LONG) INSTALLATION



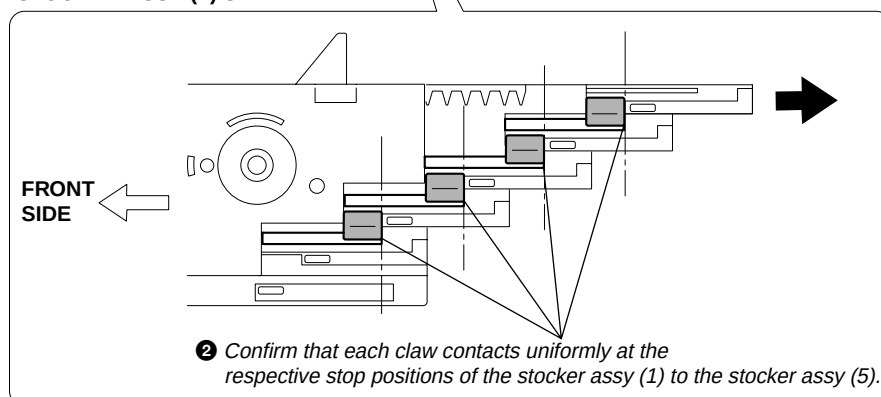
3-5. CONFIRMING THE ASSEMBLING OF THE STOCKER SECTION



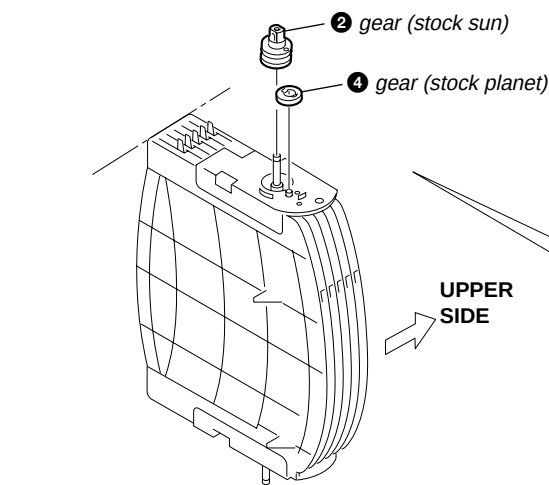
STOCKER ASSY (R) SIDE



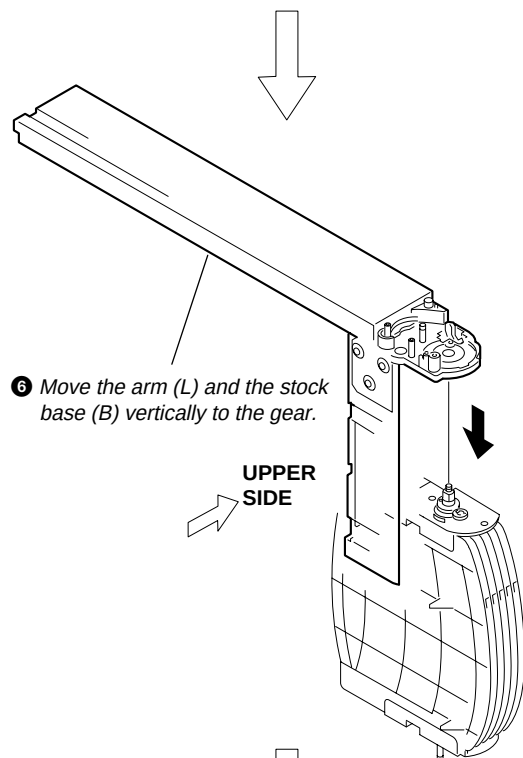
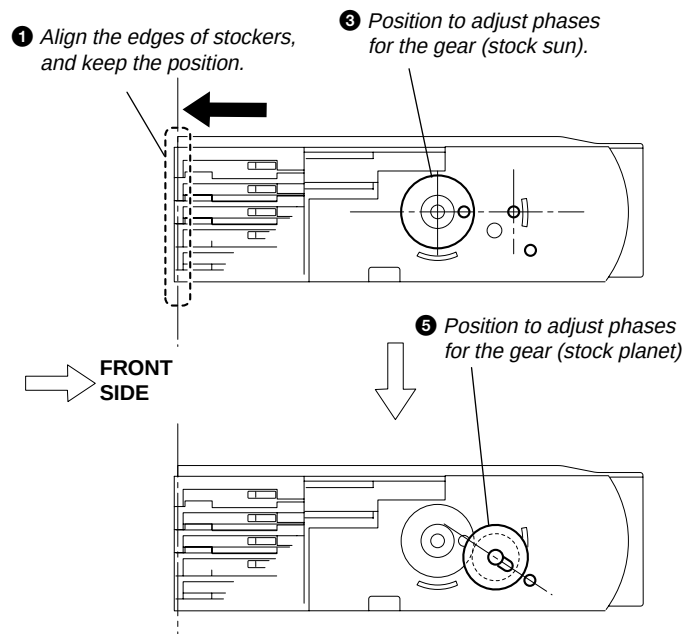
STOCKER ASSY (L) SIDE



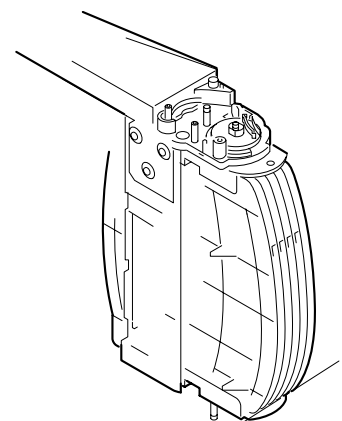
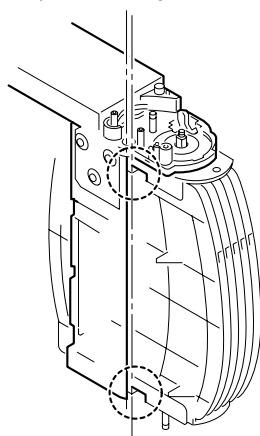
3-6. ASSEMBLING OF THE GEAR (STOCK ROTARY LEFT)



PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION



7 Check if the stock base (B) is kept parallel with groove of the stocker.

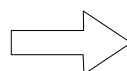


10 Align the edges of stockers, and keep the position.

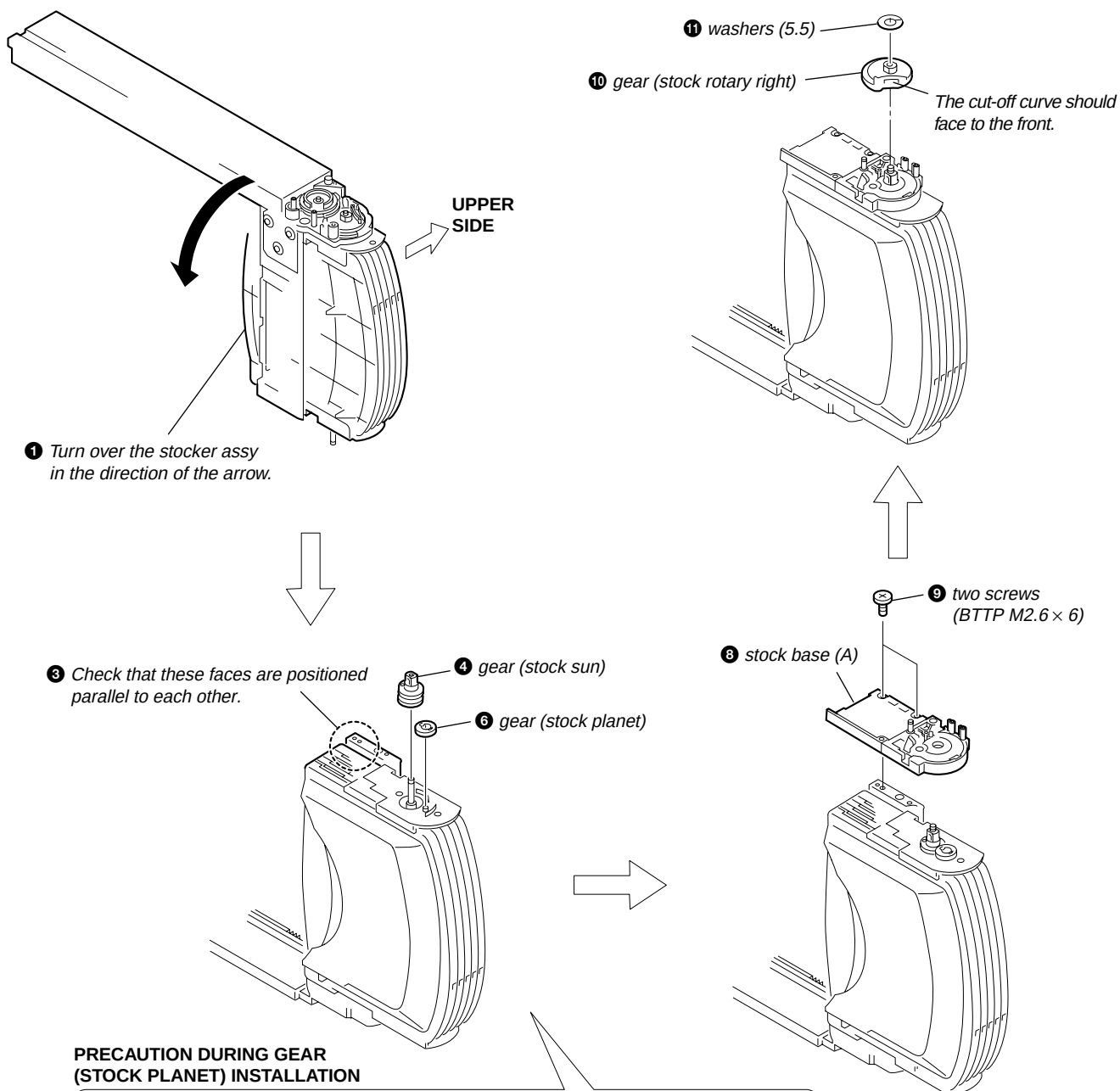
8 gear (stock rotary left)

9 washer (5.5)

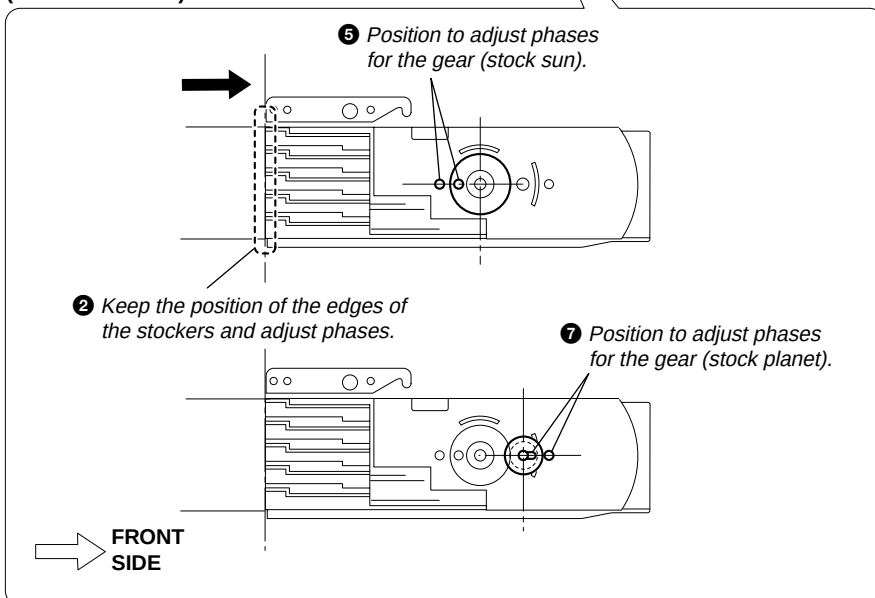
The cut-off curve should face to the front.



3-7. ASSEMBLING OF THE GEAR (STOCK ROTARY RIGHT)

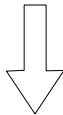
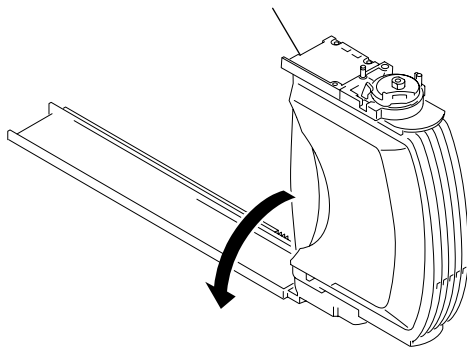


PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION



3-8. ASSEMBLING OF THE LEVER (SUB GEAR BACK L)

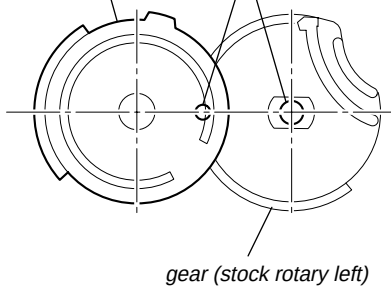
- ① Turn over the stocker assy in the direction of the arrow.



PRECAUTION DURING GEAR (SUB GEAR PIN LEFT) INSTALLATION

gear (sub gear pin left)

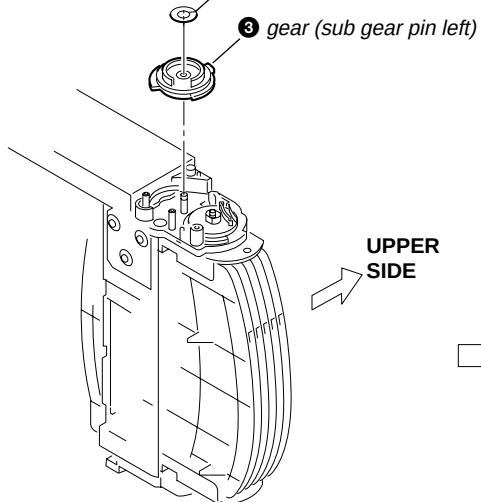
- ② Adjust phases.



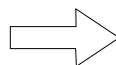
gear (stock rotary left)

- ④ washers (5.5)

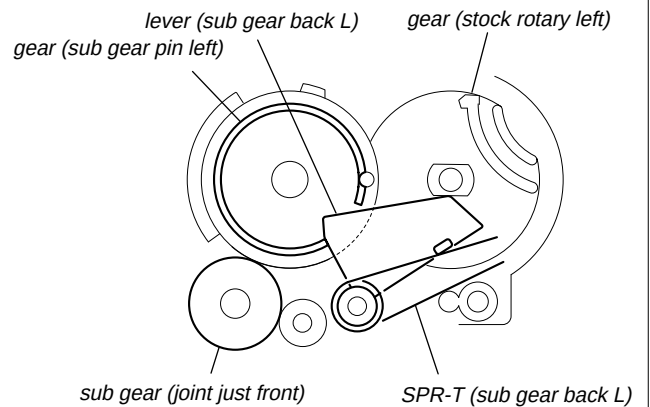
- ③ gear (sub gear pin left)



UPPER
SIDE



PRECAUTION DURING SPR-T (SUB GEAR BACK L) INSTALLATION



- ⑩ screw (M2 × 5)

- ⑪ k tapping screw (2.6 × 8)

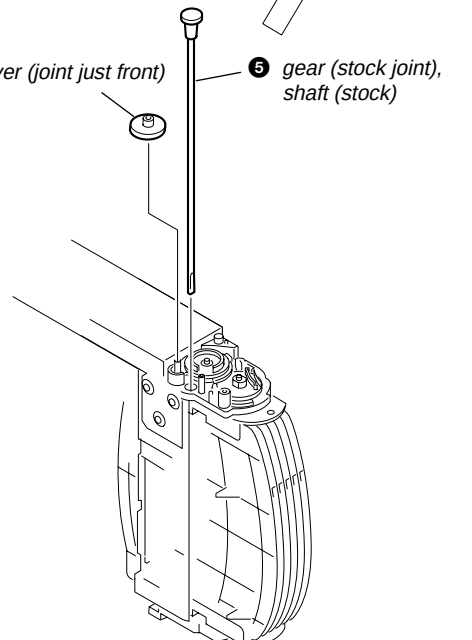
- ⑨ cover (L)

- ⑧ SPR-T (sub gear back L)

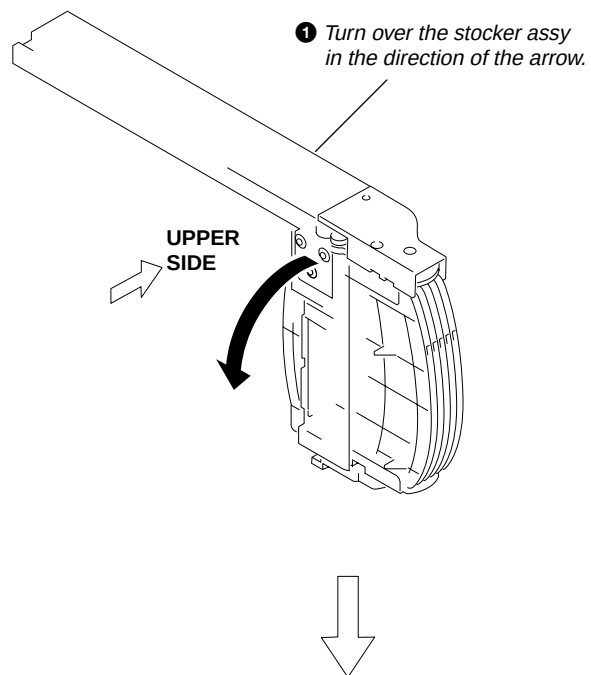
- ⑦ lever (sub gear back L)

- ⑥ lever (joint just front)

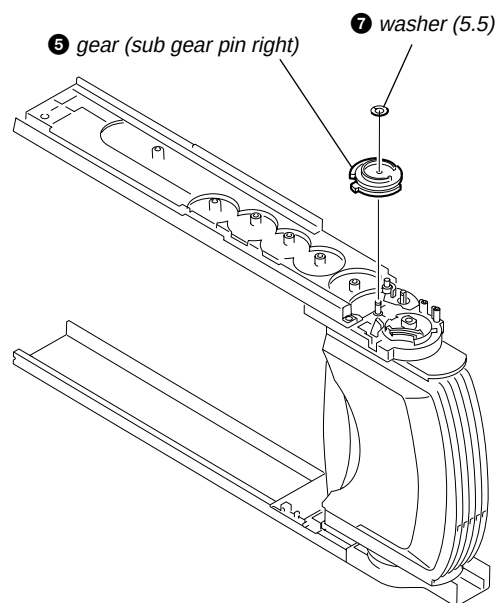
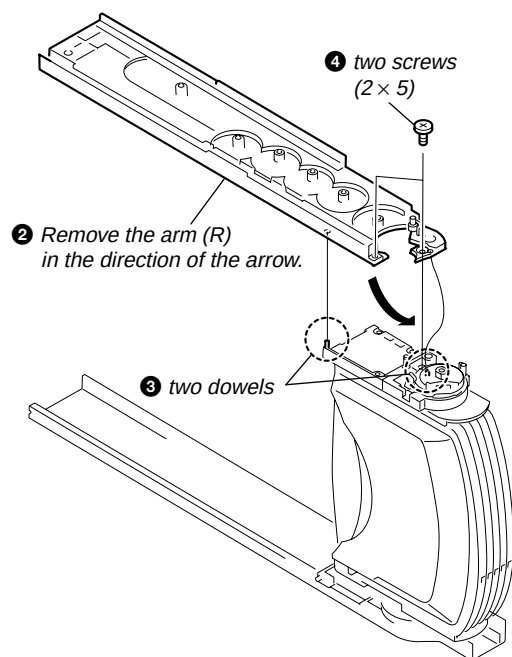
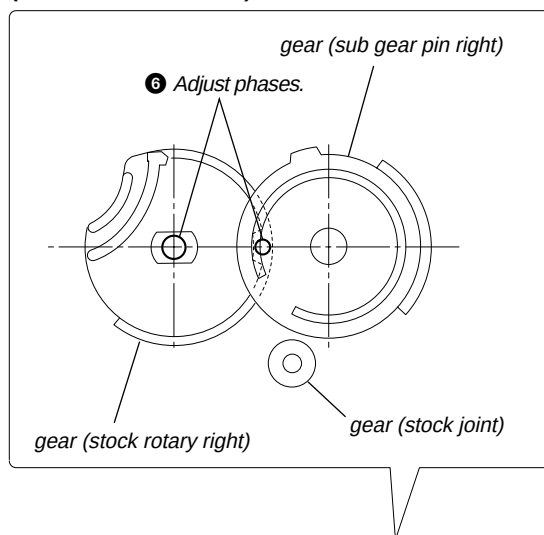
- ⑤ gear (stock joint), shaft (stock)



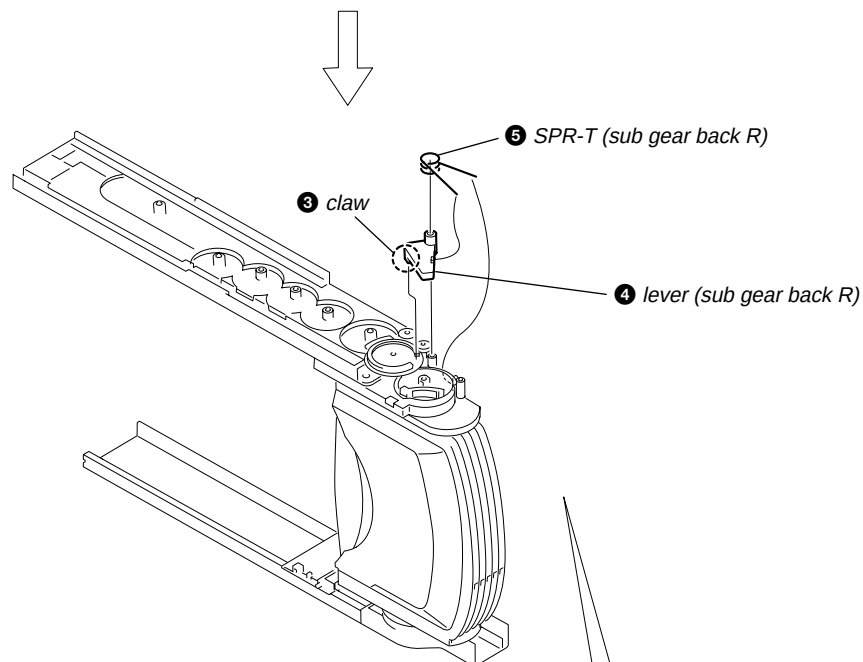
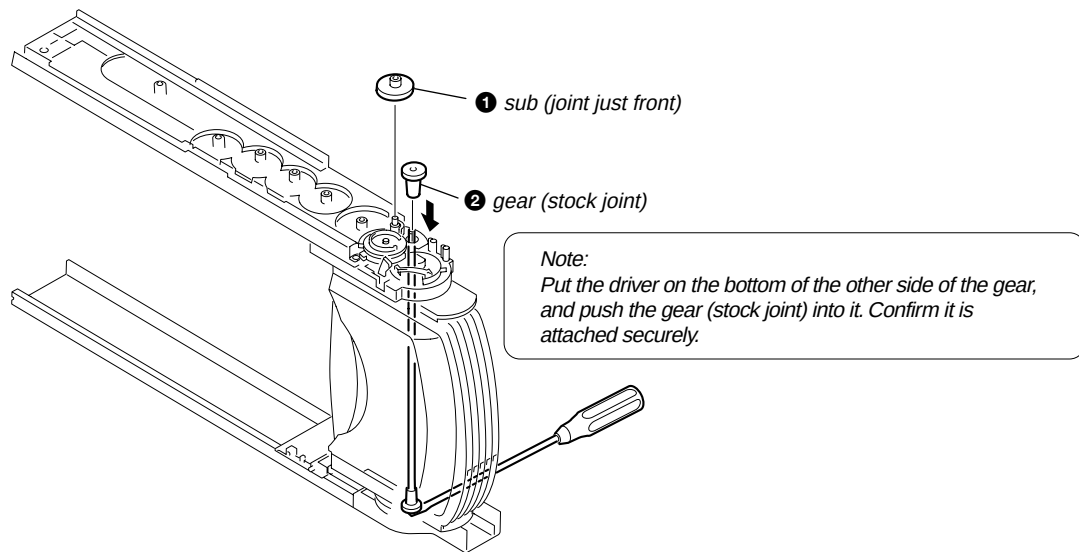
3-9. ASSEMBLING OF THE GEAR (SUB GEAR PIN RIGHT)



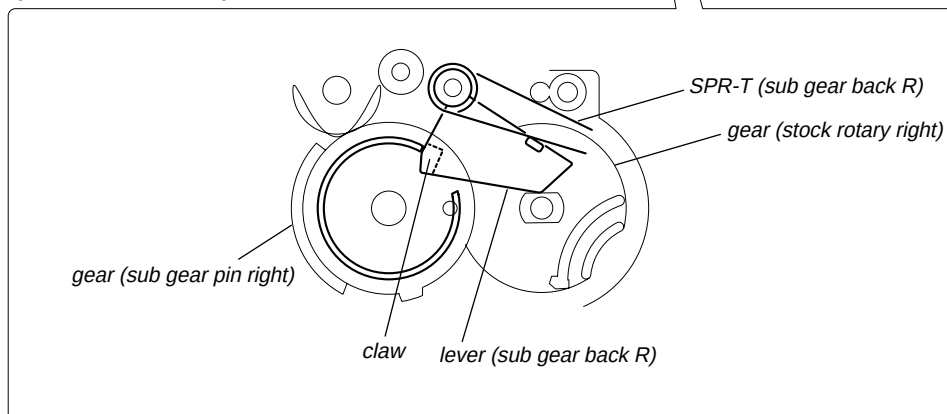
PRECAUTION DURING GEAR (SUB GEAR PIN RIGHT) INSTALLATION



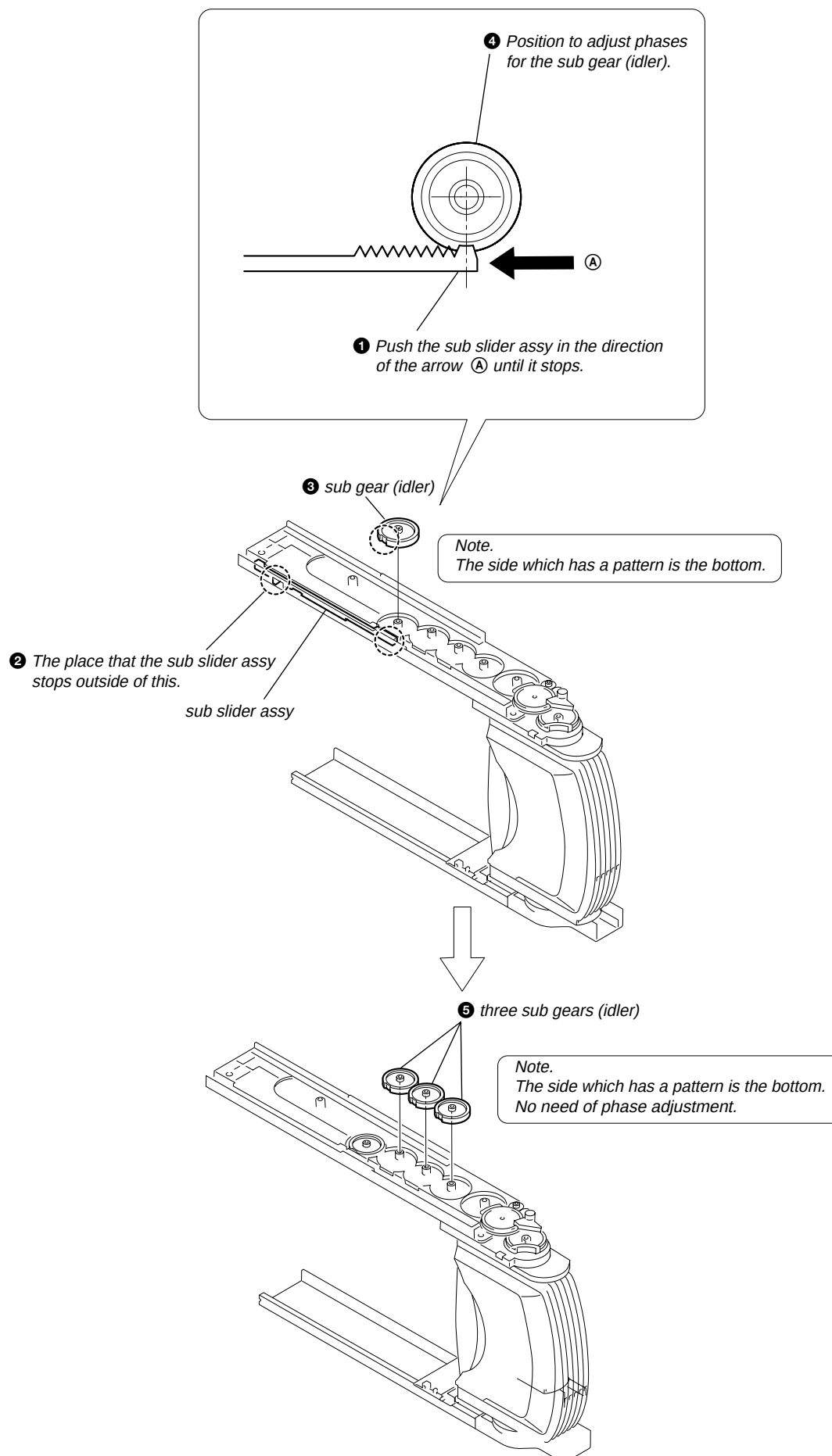
3-10. ASSEMBLING OF THE LEVER (SUB GEAR BACK R)



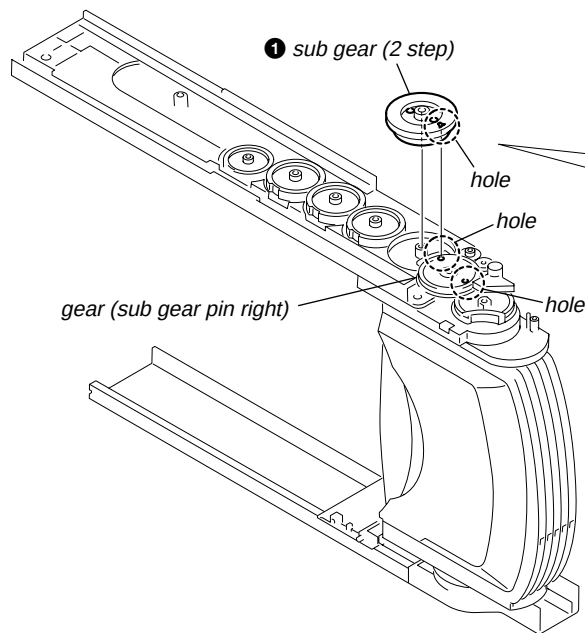
PRECAUTION DURING SPR-T (SUB GEAR BACK R) INSTALLATION



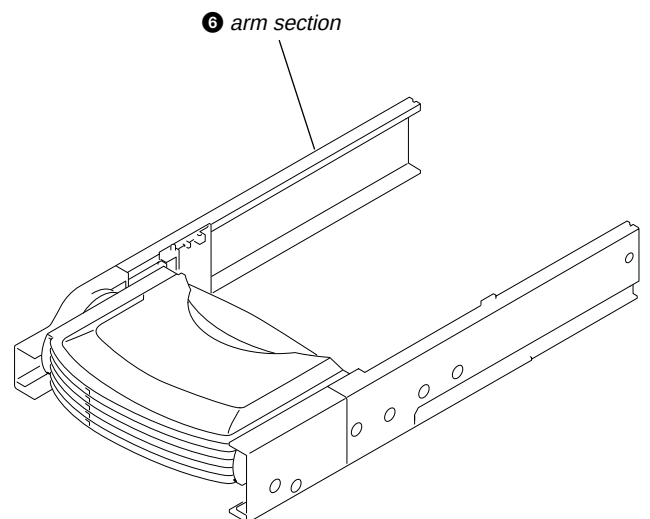
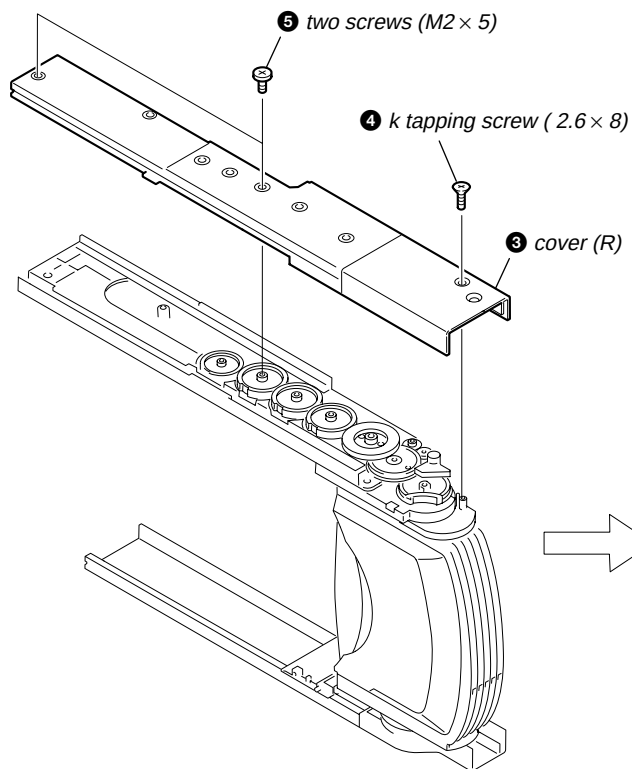
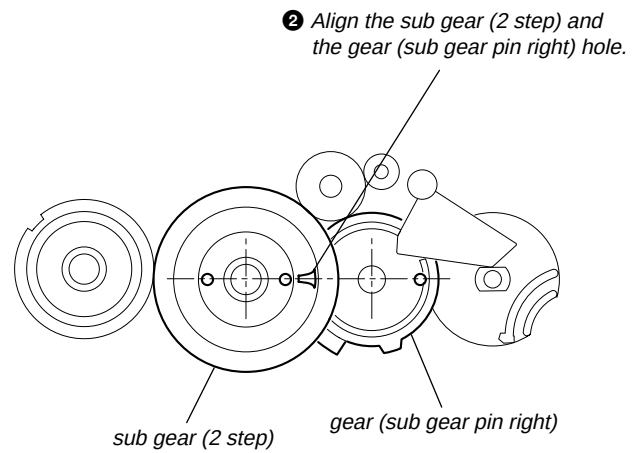
3-11. ASSEMBLING OF THE SUB GEAR (IDLER)



3-12. ASSEMBLING OF THE SUB GEAR (2 STEP)



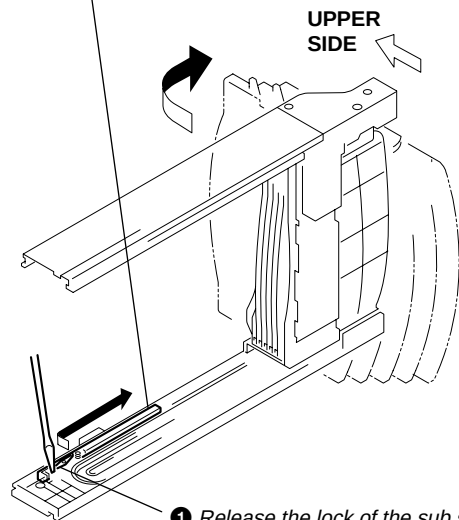
PRECAUTION DURING SUB GEAR (2 STEP) INSTALLATION



3-13. CONFIRMING THE ASSEMBLING OF THE ARM SECTION

② Check point 1:

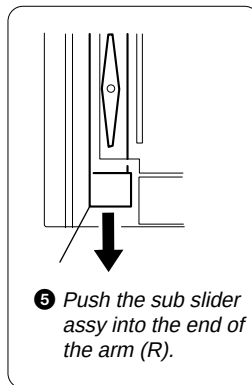
The smooth movement of this part when sliding.



① Release the lock of the sub slider assy and slide it in the direction of the arrow.

Note.

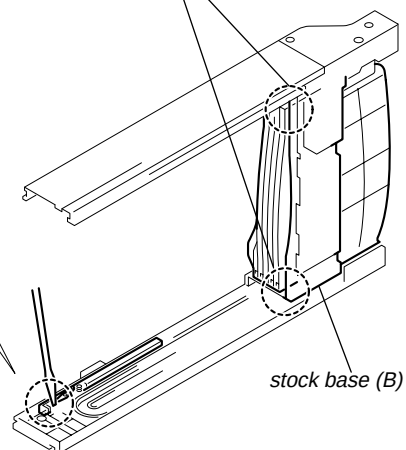
If the two parts of the stopper do not touch the stock base (B) when the sub slider assy is pushed to the end, the phases are not correctly adjusted. Reassemble the assy.



⑤ Push the sub slider assy into the end of the arm (R).

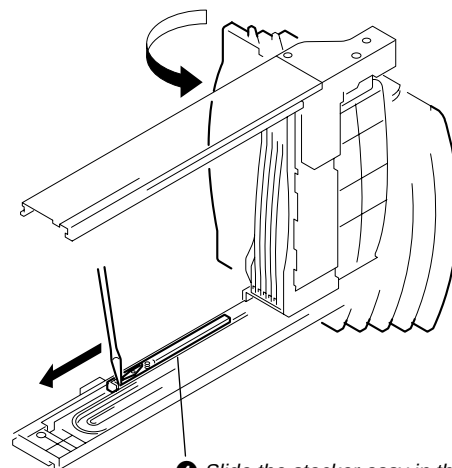
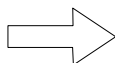
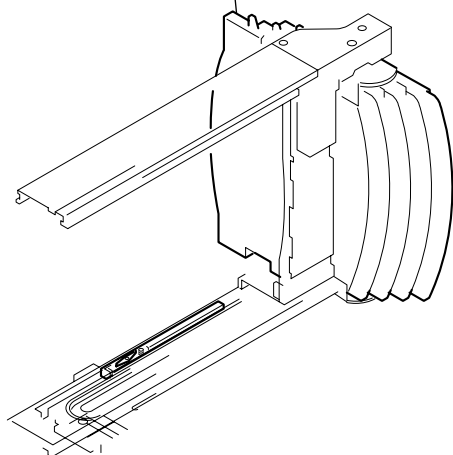
⑥ Check point 3:

Two parts of the stopper touch the stock base (B).



③ Check point 2:

All the stocker assy is standing.



④ Slide the stocker assy in the direction of the arrow.

SECTION 4 TEST MODE

[COMMON TEST MODE]

- This mode is used to check operations of Amplifier.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press three keys of **[DSGX]** and **[PLAY MODE/TUNING MODE]** and **[ENTER]** simultaneously.
- When the COMMON test mode is activated, "PLAY SLEEP" blinks on the fluorescent indicator tube.
- Turn the **[EQ]** knob counterclockwise, "TONE MIN" is displayed on the fluorescent indicator tube. Turn the **[EQ]** knob clockwise, "TONE MAX" is displayed on the fluorescent indicator tube.
Turn the **[EQ]** knob clockwise or counterclockwise, "TONEFLAT" is displayed on the fluorescent indicator tube. Turn the **[VOLUME]** knob counterclockwise, "VOL MIN" is displayed on the liquid crystal display. Turn the **[VOLUME]** knob clockwise, "VOL MAX" is displayed on the fluorescent indicator tube.
- To release this mode, press the **[I/⏻]** key.

[PANEL TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED, model, destination, software version and key.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press three keys of **[DSGX]**, **[ILLUMINATION]** and **[ENTER]** simultaneously.
- Fluorescent indicator tube is all turned on and each LED of **[CD ►►]**, **[TUNER/BAND]**, **[TAPE ►]**, **[DSGX]** and **[STANDBY]** blinks every 0.5 seconds.
- When you want to enter the model, destination and version display mode, press the **[PLAY MODE/TUNING MODE]** key. The model and destination are displayed alternately on the fluorescent indicator tube.
- Each time **[PLAY MODE/TUNING MODE]** key is pressed, the display changes starting from MC version, GC version, CD version, CDD version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version, and TC version this order, and returns to the MC version display on the fluorescent indicator tube.
- Press the **[CD SYNC]** key, the key check mode is activated.
- In the key check mode, the fluorescent indicator tube displays "K 0 J0 V0".
- Each time a button is pressed, "K" value increases. However, once a button is pressed, it is no longer taken into account. All keys are pressed, display becomes "K24".
- "V" value increases 1, 2, 3 ... if turn the **[VOLUME]** knob clockwise, or it decreases 0, 9, 8 ... if turn the knob counterclockwise
- When **[FUNCTION]** key is pressed while the version numbers are being displayed except model and destination, year, month and day of the software creation display. When **[FUNCTION]** key is pressed again, the display returns to the software version display. In this state, each time **[PLAY MODE/TUNING MODE]** key is pressed, the year, month and day of creation of the software versions are displayed on the fluorescent indicator tube in the same order of version display.
- To release this mode, press three keys in the same manner as step 2, or disconnect the power cord.

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press three keys of **[I/⏻]**, **[ILLUMINATION]** and **[STOP]** simultaneously.
- The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[SHIP MODE (NO MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press the **[FUNCTION]** key to select "CD".
- Press three keys of **[ILLUMINATION]**, **[STOP]** and **[DISC 1]** simultaneously.
- After the "STANDBY" display blinks, "LOCK" is displayed on the fluorescent indicator tube, and the ship mode is set.

[SHIP MODE (MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press the **[FUNCTION]** key to select "CD".
- Press three keys of **[DSGX]**, **[DISC 1]** and **[ILLUMINATION]** simultaneously.
- After the "STANDBY" display blinks, "LOCK" is displayed on the fluorescent indicator tube, and the ship mode is set.

[CD SLOT LOCK MODE]

- This mode is used to unable to take sample disc out of disc slot in the shop.

Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press the **[FUNCTION]** key to select "CD".
- While pressing the **[▲]** key, press the **[STOP]** key for 5 seconds.
- The message "LOCKED" is displayed on the fluorescent indicator tube and the disc slot is locked. (Even if pressing the **[▲]** key, the message "LOCKED" is displayed on the fluorescent indicator tube and the disc slot is locked)
- To release from this mode, pressing the **[▲]** key, press the **[STOP]** key for 5 seconds.
- The message "UNLOCKED" is displayed on the fluorescent indicator tube and the disc slot is unlocked.

[CD SERVICE MODE]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

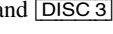
Procedure:

- Press the **[I/⏻]** key to turn the power ON.
- Press the **[FUNCTION]** key to select "CD".
- Press three keys of **[DSGX]**, **[DISC 2]** and **[ILLUMINATION]** simultaneously.
- Press the **[►►►]** key to move the optical pick-up to outside track, or press the **[◄◄◄]** key to inside track.
- Press the **[STOP]** key, "LD OFF" is displayed and laser diode is turned off. Each time **[STOP]** key is pressed, laser diode ON/OFF switch is performed.
- To release this mode, press the **[I/⏻]** key.

[CD ERROR CODE DISPLAY MODE]

This mode can be used for error code display of CD section.

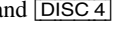
Procedure:

1. Press the  button to turn the power on.
2. Press the  key to select “CD”.
3. Press three keys of ,  and  simultaneously.
4. When this mode is activated, mechanism deck error code is displayed on the fluorescent indicator tube.
5. Press the   keys to changed over between optical pick-up error code display mode and mechanism deck error code mode.
6. Turn the   keys to change over display of error history.

[CD SERVO TEST MODE]

- This mode used to check operation of optical pick-up.

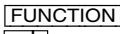
Procedure:

1. Press the  key to turn the power ON.
2. Press the  key to select “CD”.
3. Press three keys of ,  and  simultaneously.
4. To release this mode, press the  key.

[CD POWER MANAGE]

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the  button to turn the power on.
2. Press the  key to select “CD”.
3. Press the  button again to turn the power off (standby).
4. While pressing the  button, press the  button.
5. It turns power on and display “CD POWER”, then display “ON” or “OFF”.

SECTION 5 MECHANICAL ADJUSTMENTS

• Precaution

- Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	2.95 – 6.86 mN • m (30 to 70 g • cm) (0.42 – 0.97 oz • inch)
FWD back tension	CQ-102C	0.15 – 5.39 mN • m (1.5 to 5.5 g • cm) (0.021 – 0.076 oz • inch)
FF	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)
REW	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 6 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.

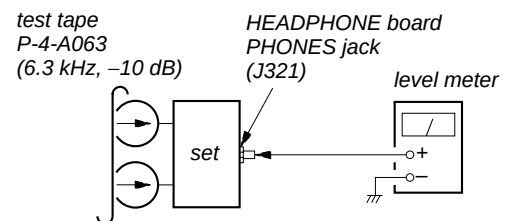
• Test Tape

Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

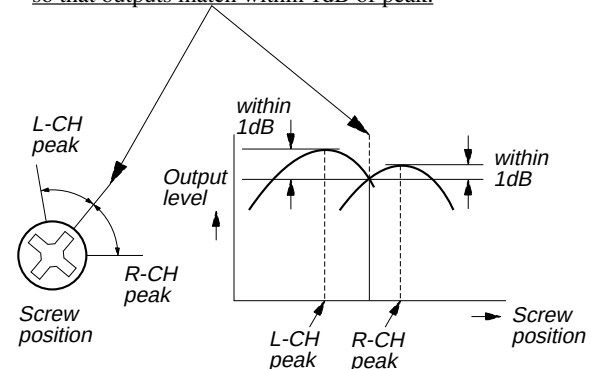
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

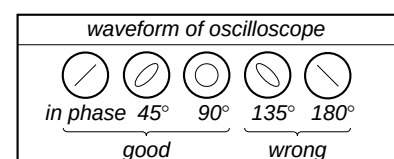
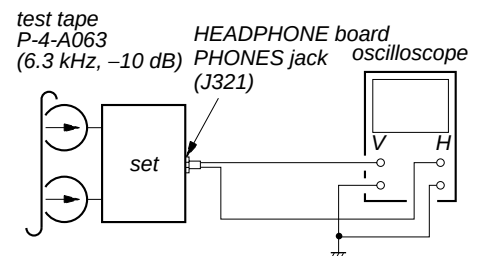
- Mode: Playback



- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.

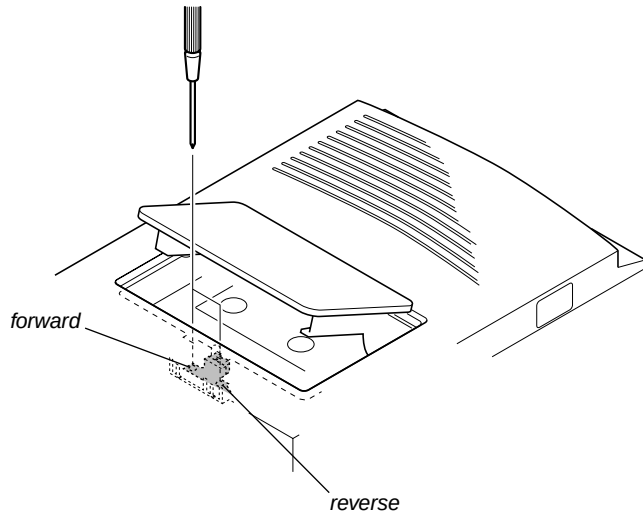


- Mode: Playback



- After the adjustments, apply suitable locking compound to the parts adjusted.

Adjustment Location: Record/Playback/Erase Head

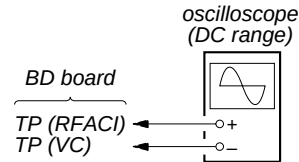


CD SECTION

Note:

1. CD Block is basically constructed to operate without adjustment.
2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
3. Use an oscilloscope with more than 10 MΩ impedance.
4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
5. Check the focus bias check when optical pick-up block is replaced.

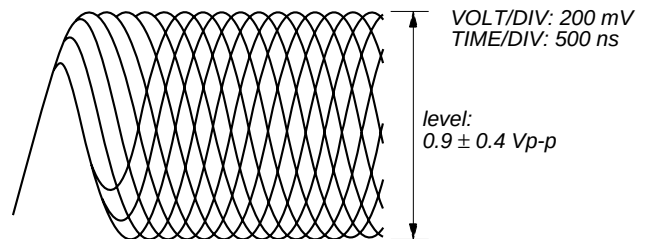
FOCUS BIAS CHECK



Procedure :

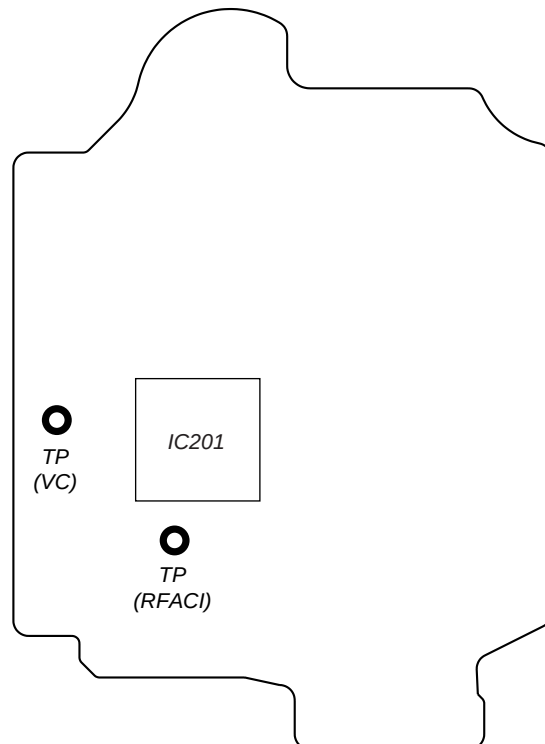
1. Connect oscilloscope to TP (RFACI) and TP (VC) on the BD board.
2. Press the button to turn the power ON, and press the (CD) button to open the CD disc tray.
3. Set disc (YEDS-18) on the tray and press the button to playback.
4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)

A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.



Checking Location:

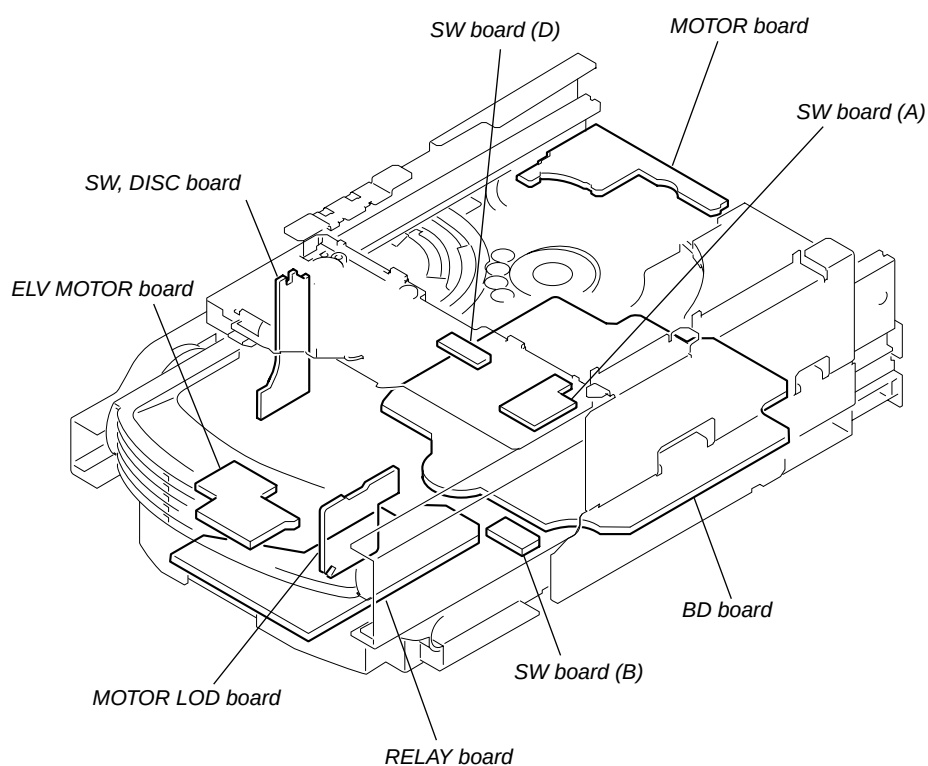
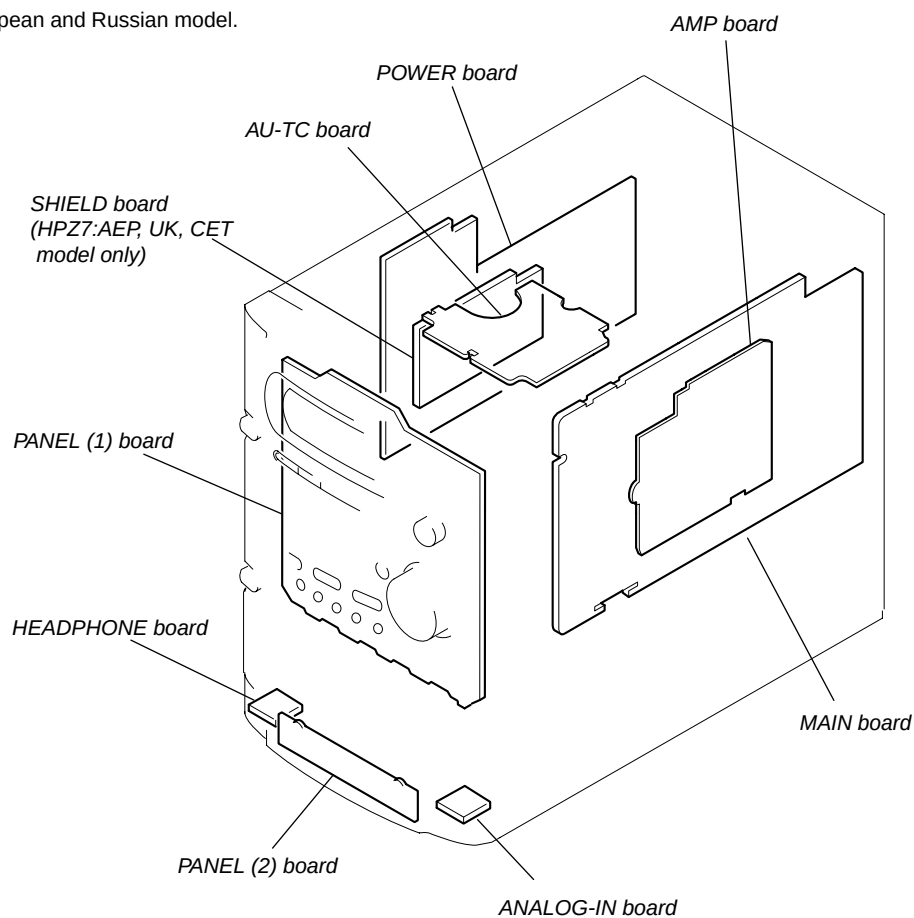
– BD Board (Conductor Side) –



SECTION 7 DIAGRAMS

• Circuit Boards Location

- Abbreviation
CET : East European and Russian model.



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.

Note:

- All capacitors are in μF unless otherwise noted. (p: pF) 50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4} \text{ W}$ or less unless otherwise specified.
- $\triangle$: internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.

Note:

The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Note:

Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

-  : B+ Line.
-  : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω). Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with a oscilloscope. Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 -  : TUNER
 -  : CD
 -  : AUDIO
 -  : AUX
 -  : PB (TAPE)
 -  : REC (TAPE)
 -  : DIGITAL OUT
 -  : ANALOG IN
- Abbreviation
 - AR : Argentina model
 - AUS : Australian model
 - CND : Canadian model
 - CET : East European and Russian model
 - E51 : Chilean and Peruvian model
 - KR : Korea model
 - MX : Mexican model
 - SP : Singapore model
 - TW : Taiwan model

For Printed Wiring Boards.

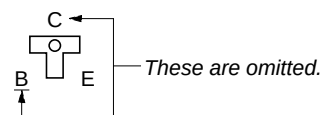
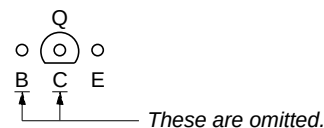
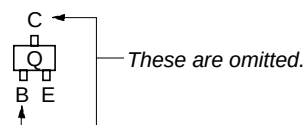
Note:

-  : parts extracted from the component side.
-  : parts extracted from the conductor side.
- $\triangle$: internal component.
-  : Pattern from the side which enables seeing.

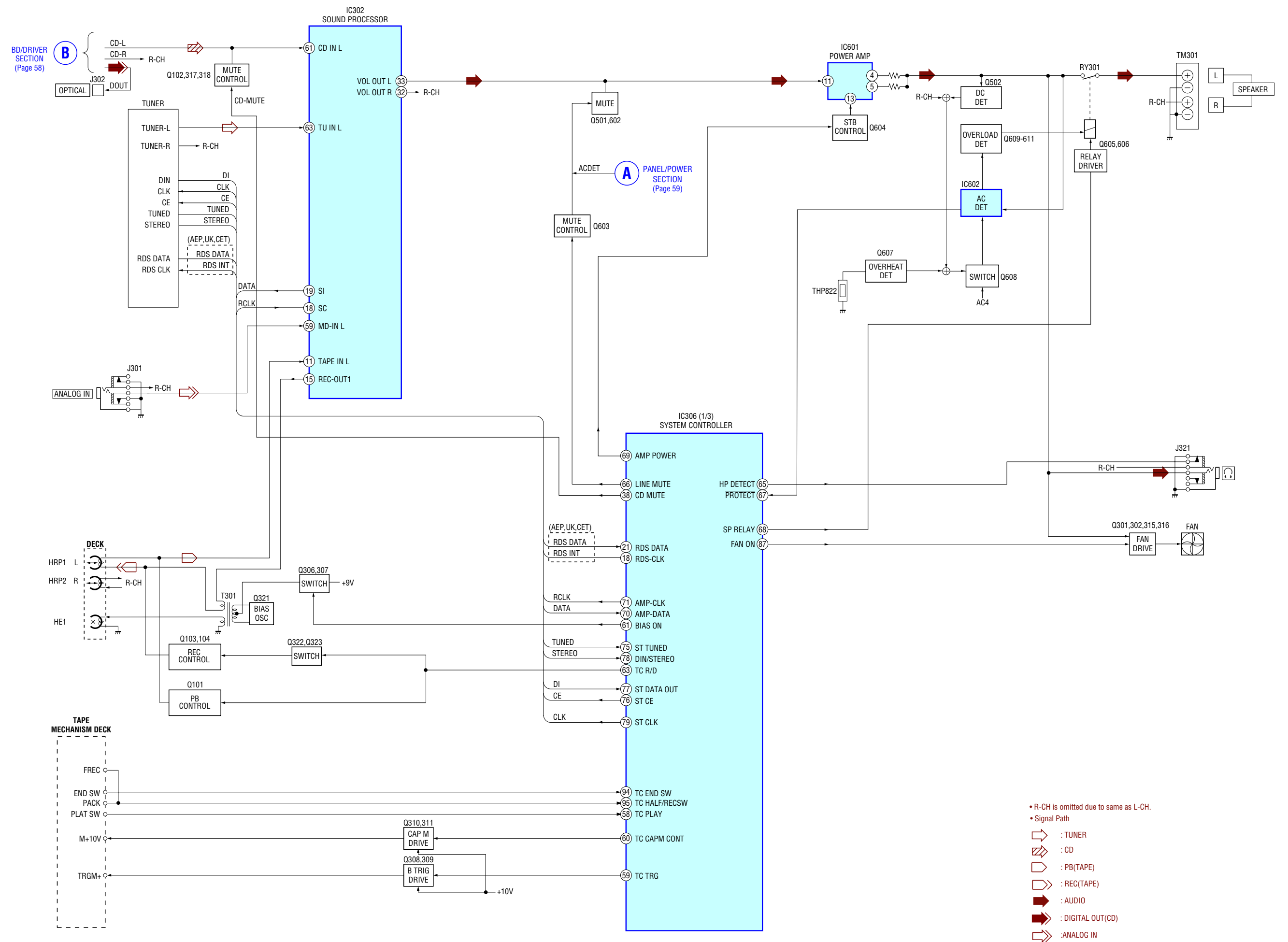
Caution:

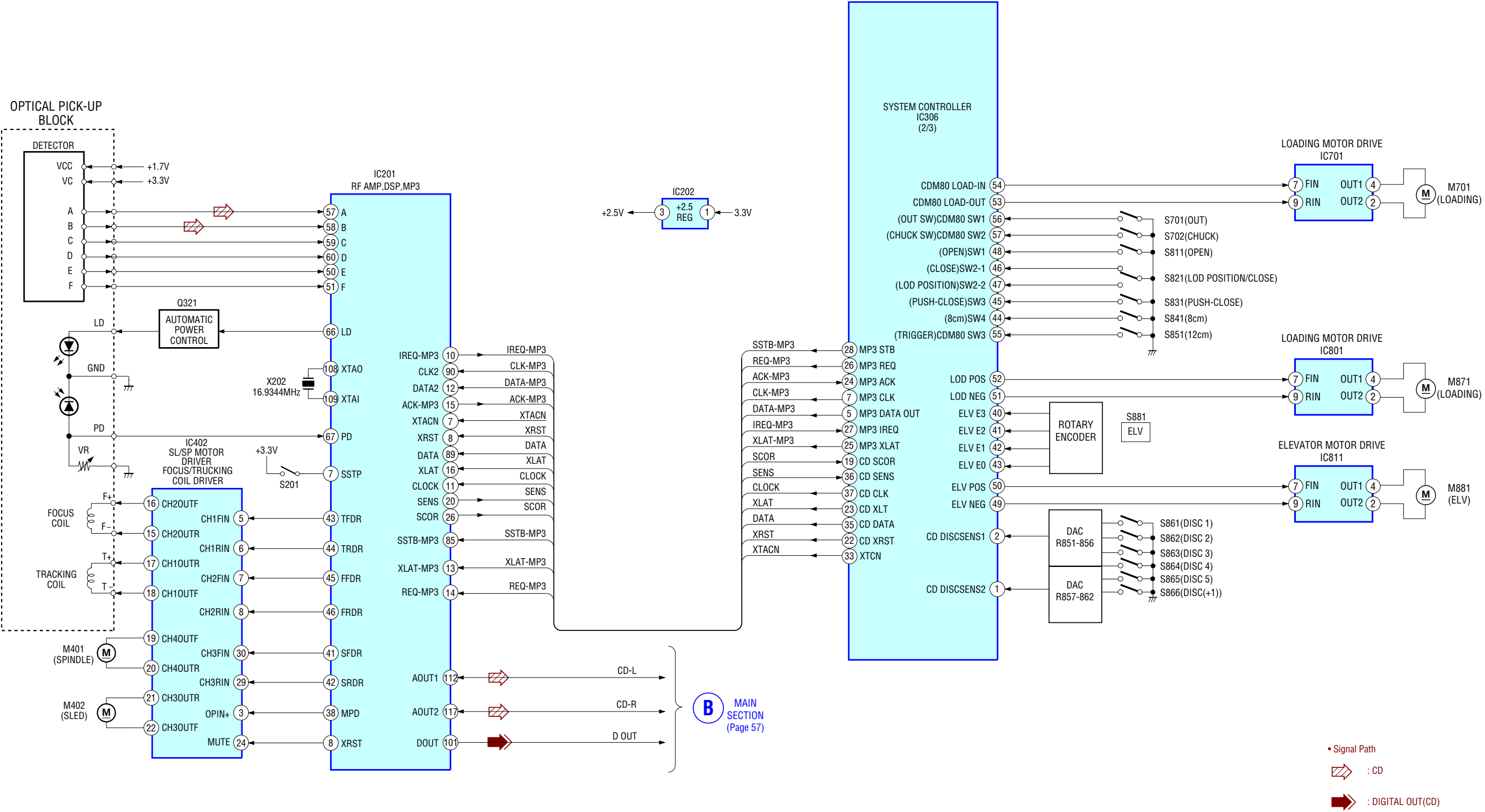
Pattern face side: Parts on the pattern face side seen from (Side A) the pattern face are indicated.
 Parts face side: Parts on the parts face side seen from (Side B) the parts face are indicated.

- Indication of transistor.

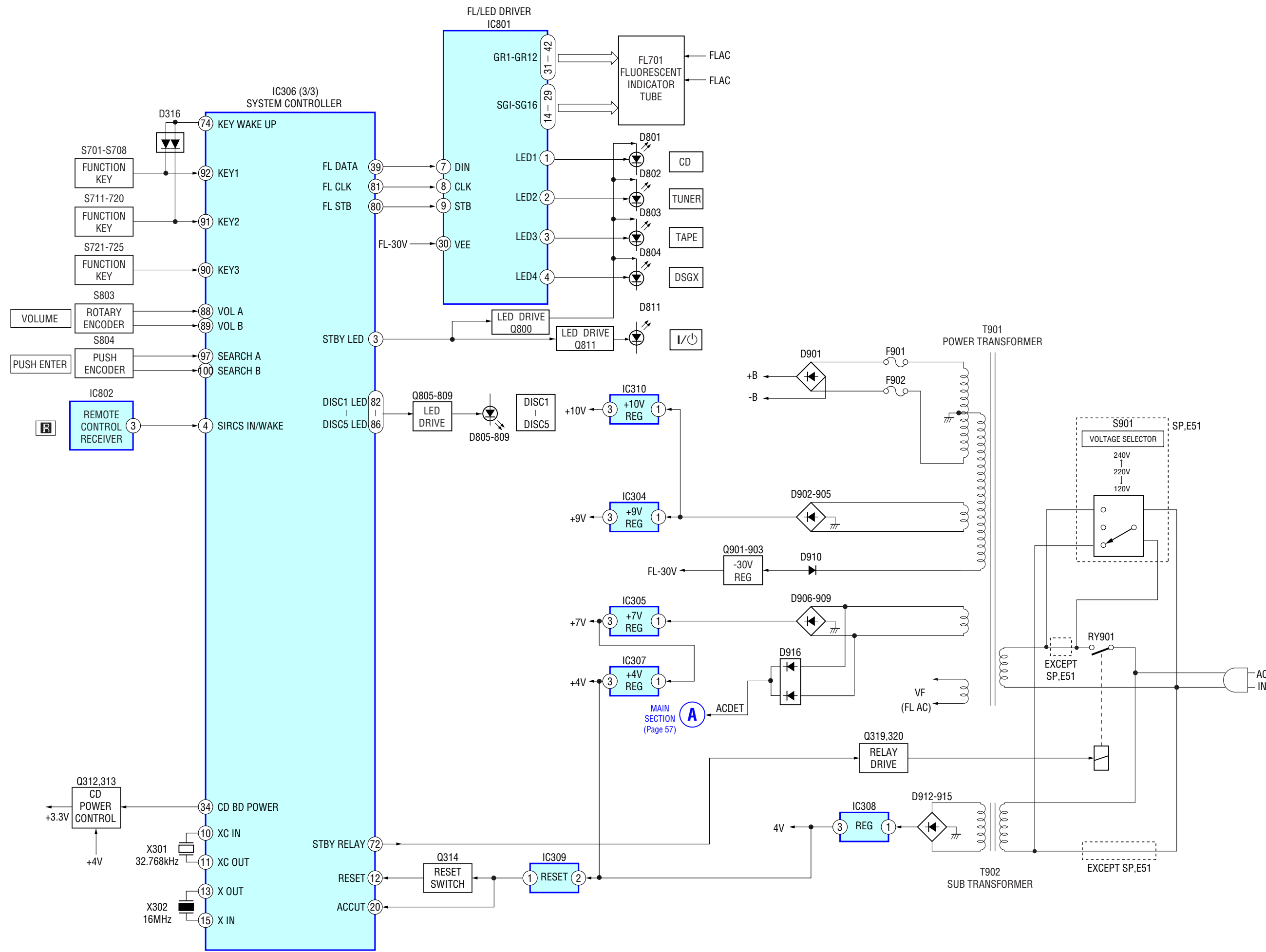


7-1. BLOCK DIAGRAM — MAIN SECTION —



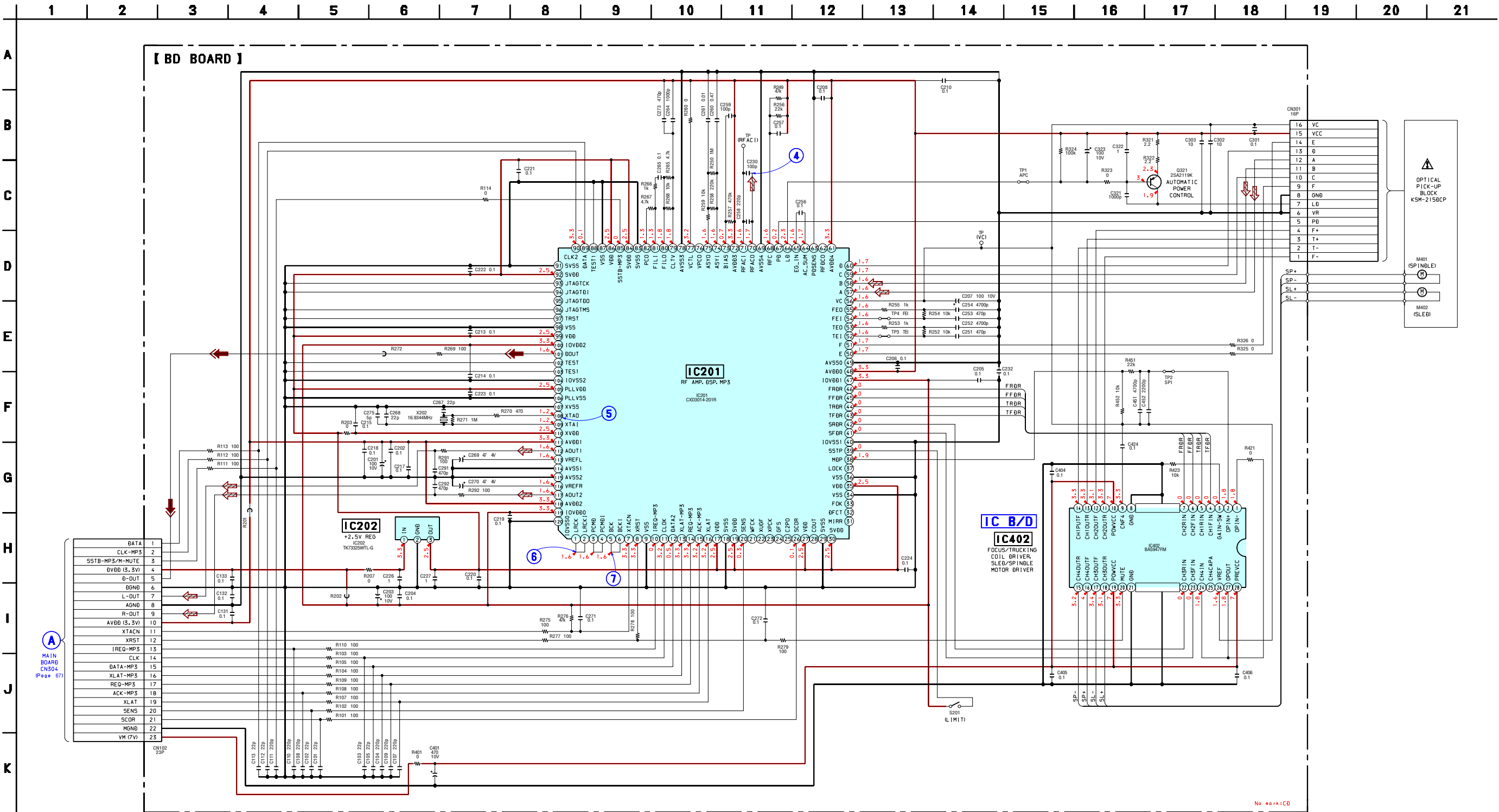


7-3. BLOCK DIAGRAM — PANEL/POWER SECTION —

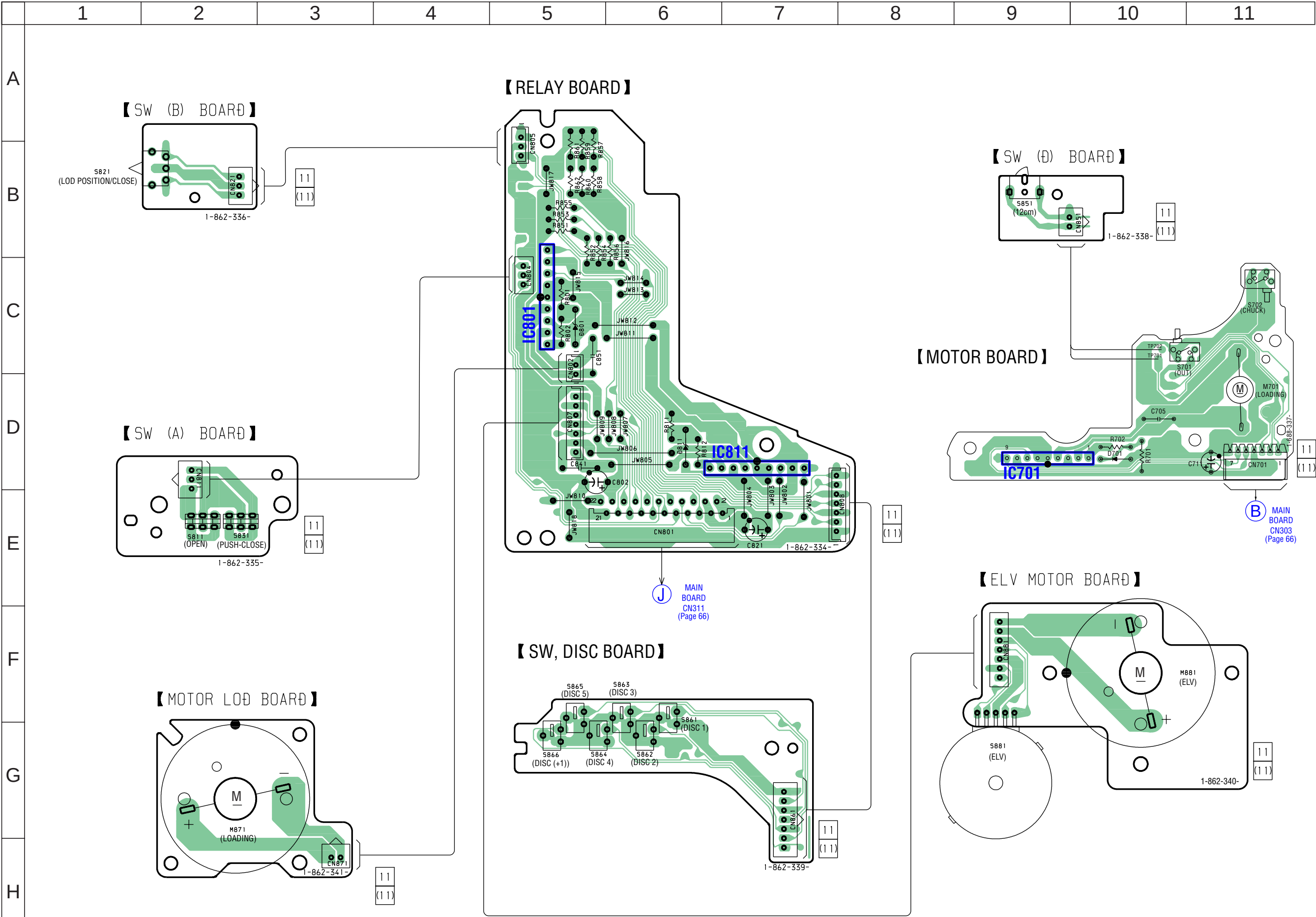




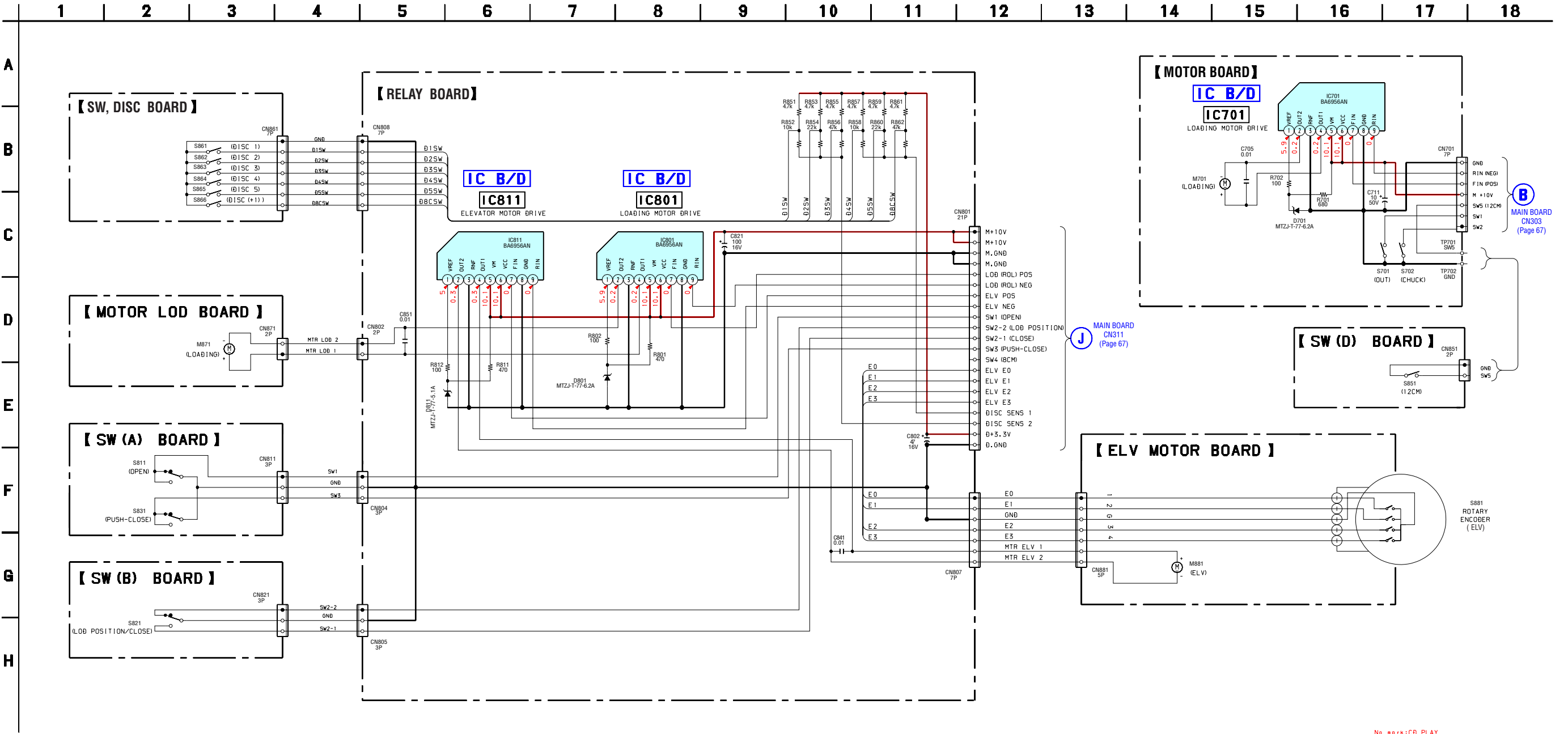
7-5. SCHEMATIC DIAGRAM — BD BOARD — • See page 76 for IC Block Diagram. • See page 76 for Waveforms. • See page 79 for IC Pin Function Description.



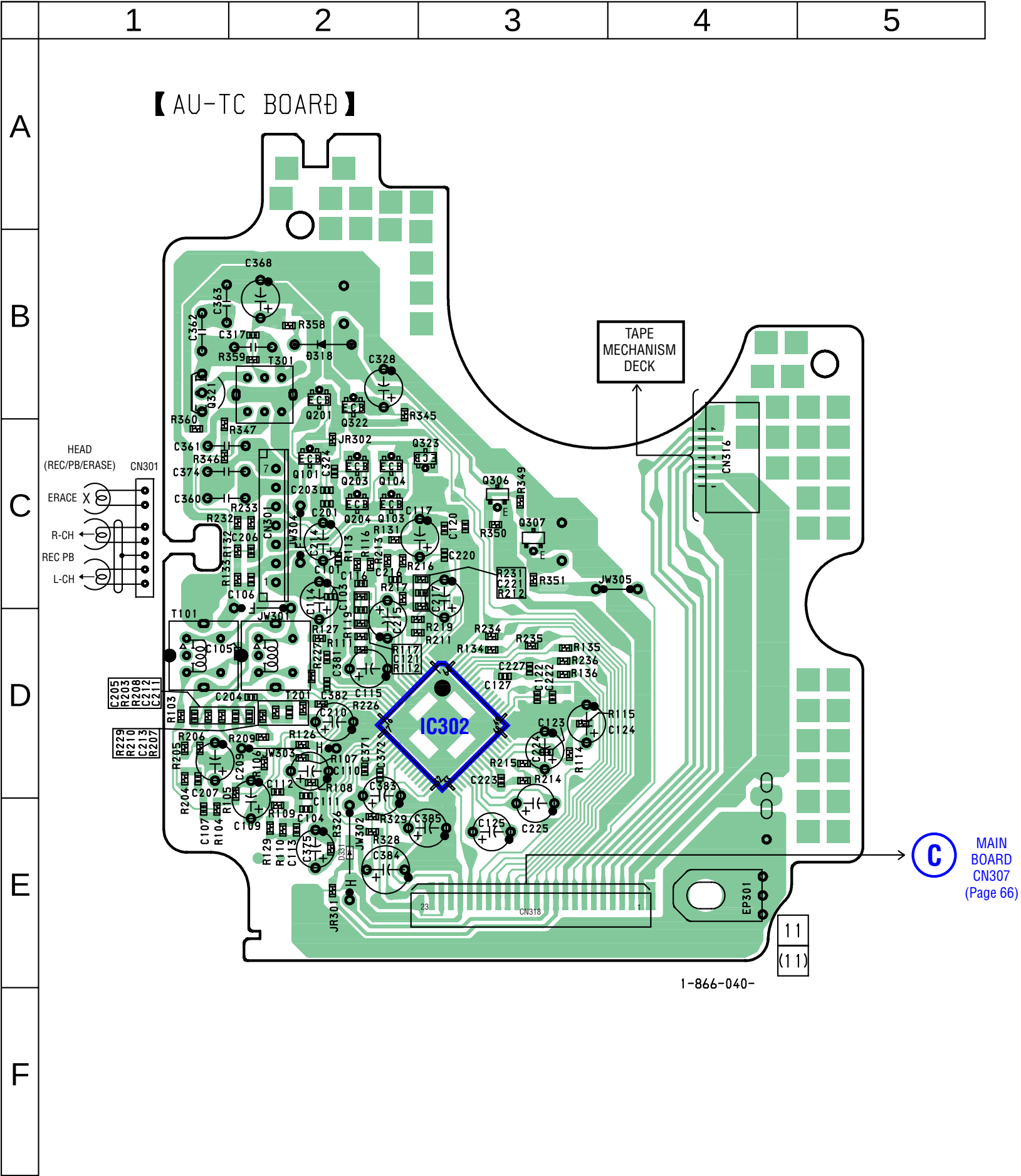
7-6. PRINTED WIRING BOARD — MOTOR SECTION — • See page 55 for Circuit Boards Location. :Uses unleaded solder.



7-7. SCHEMATIC DIAGRAM — MOTOR SECTION — • See page 77 for IC Block Diagrams.



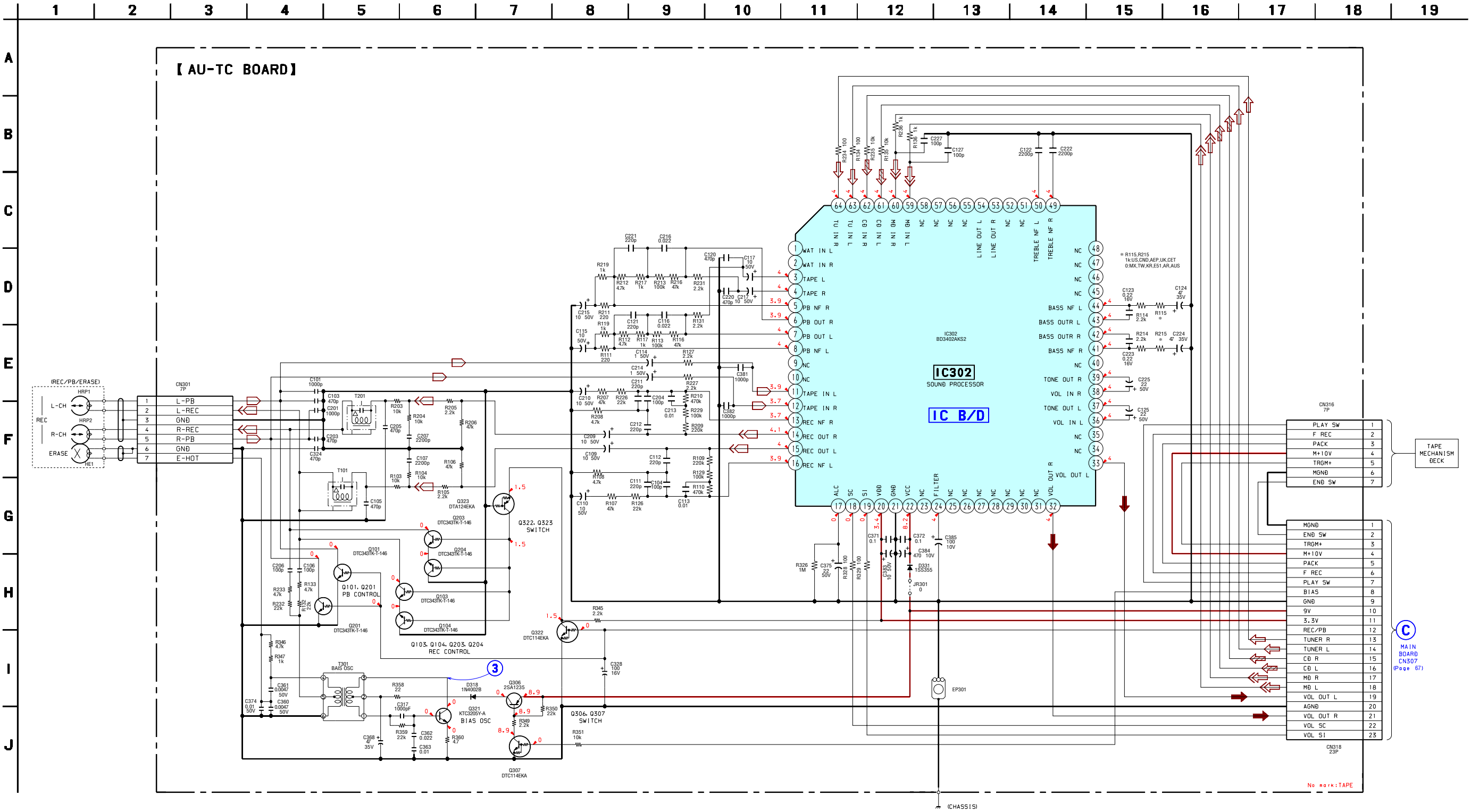
No mark: CD PLAY

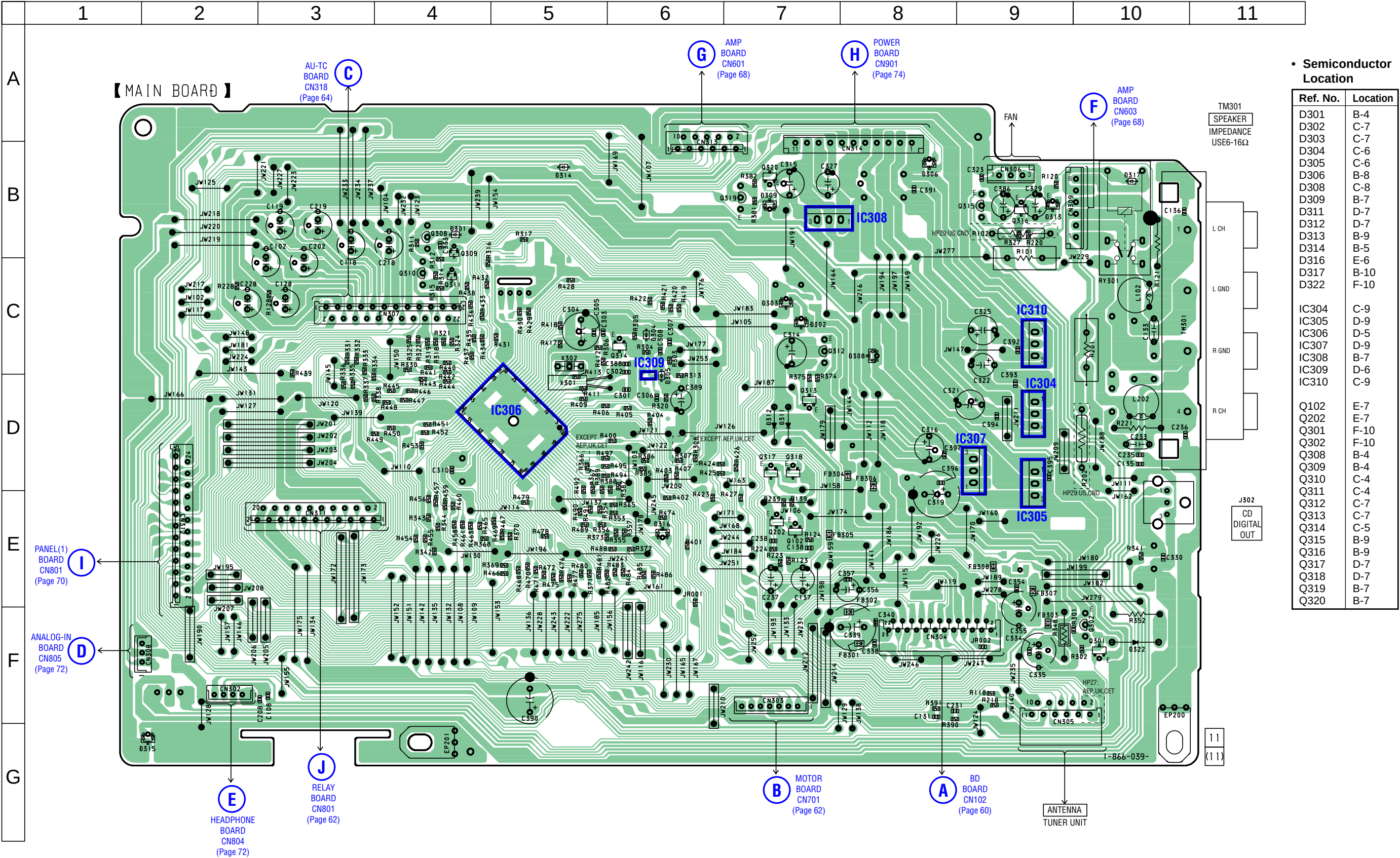


• Semiconductor Location

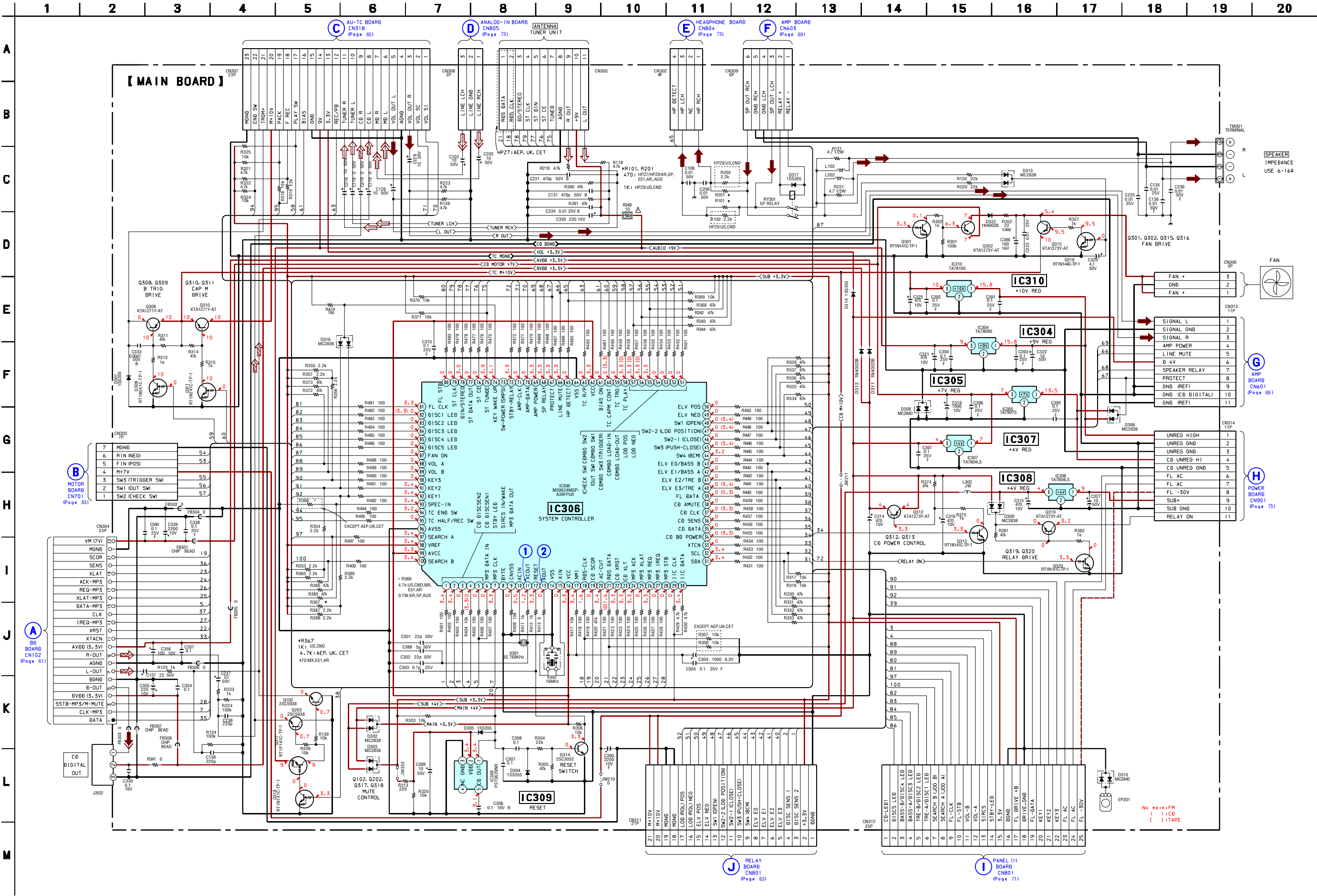
Ref. No.	Location
D318	B-2
D331	E-2
IC302	D-3
Q101	C-2
Q103	C-2
Q104	C-2
Q201	B-2
Q203	C-2
Q204	C-2
Q306	C-2
Q307	C-3
Q321	B-1
Q322	B-2
Q323	C-3

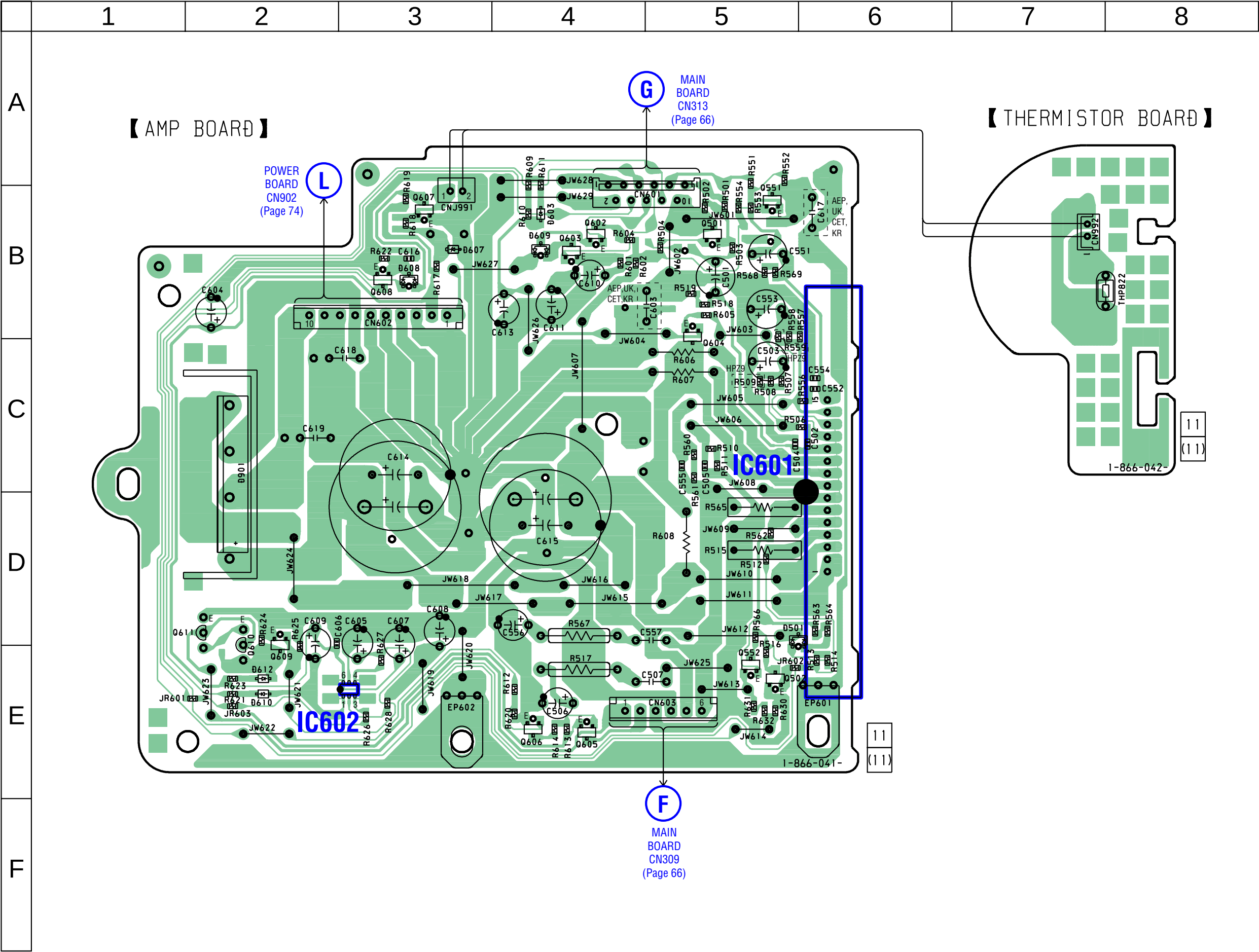
7-9. SCHEMATIC DIAGRAM — AUDIO SECTION — • See page 77 for IC Block Diagram. • See page 76 for Waveform.





7-11. SCHEMATIC DIAGRAM — MAIN BOARD — • See page 76 for Waveforms. • See page 82 for IC Pin Function Description.

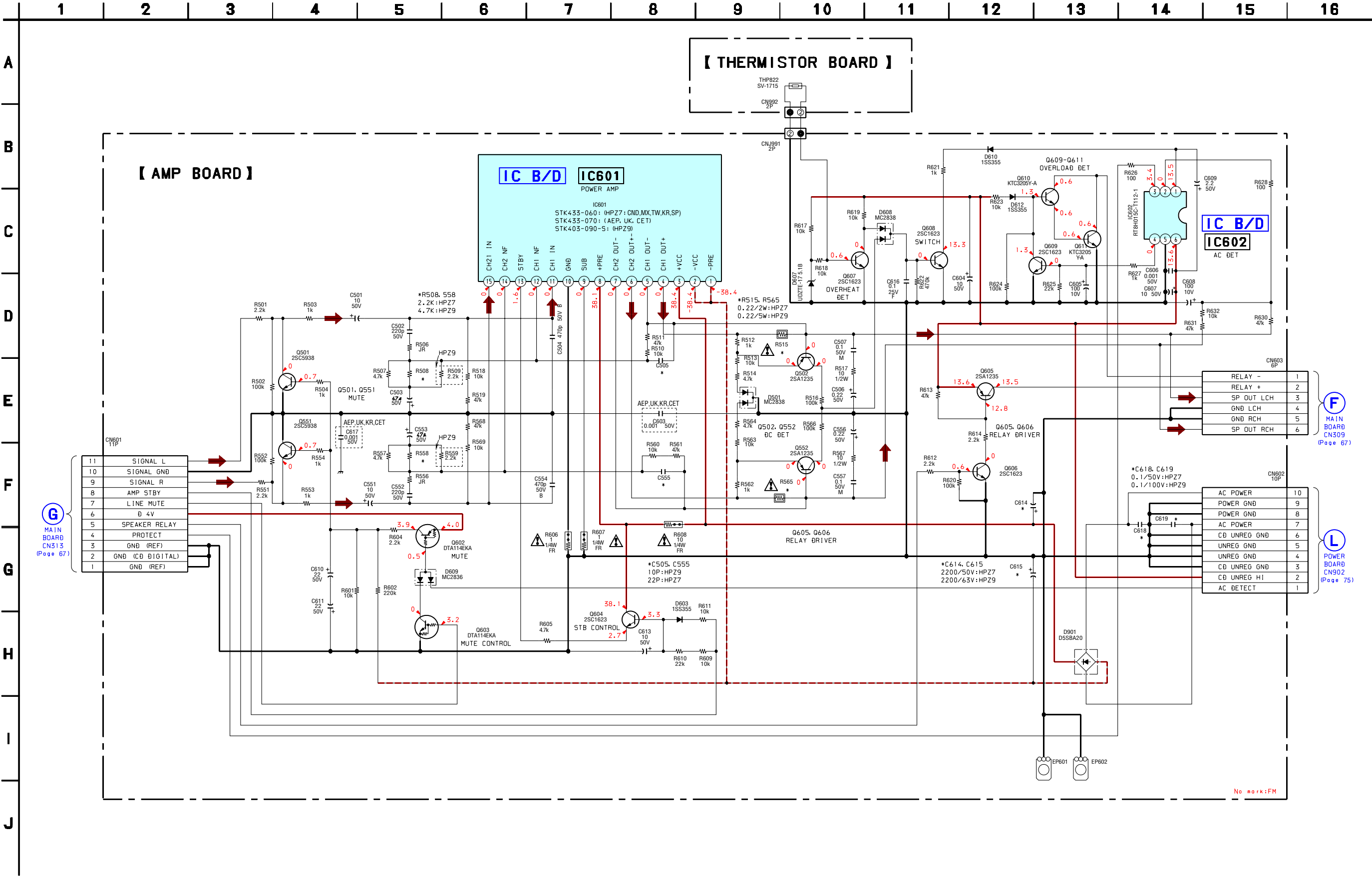




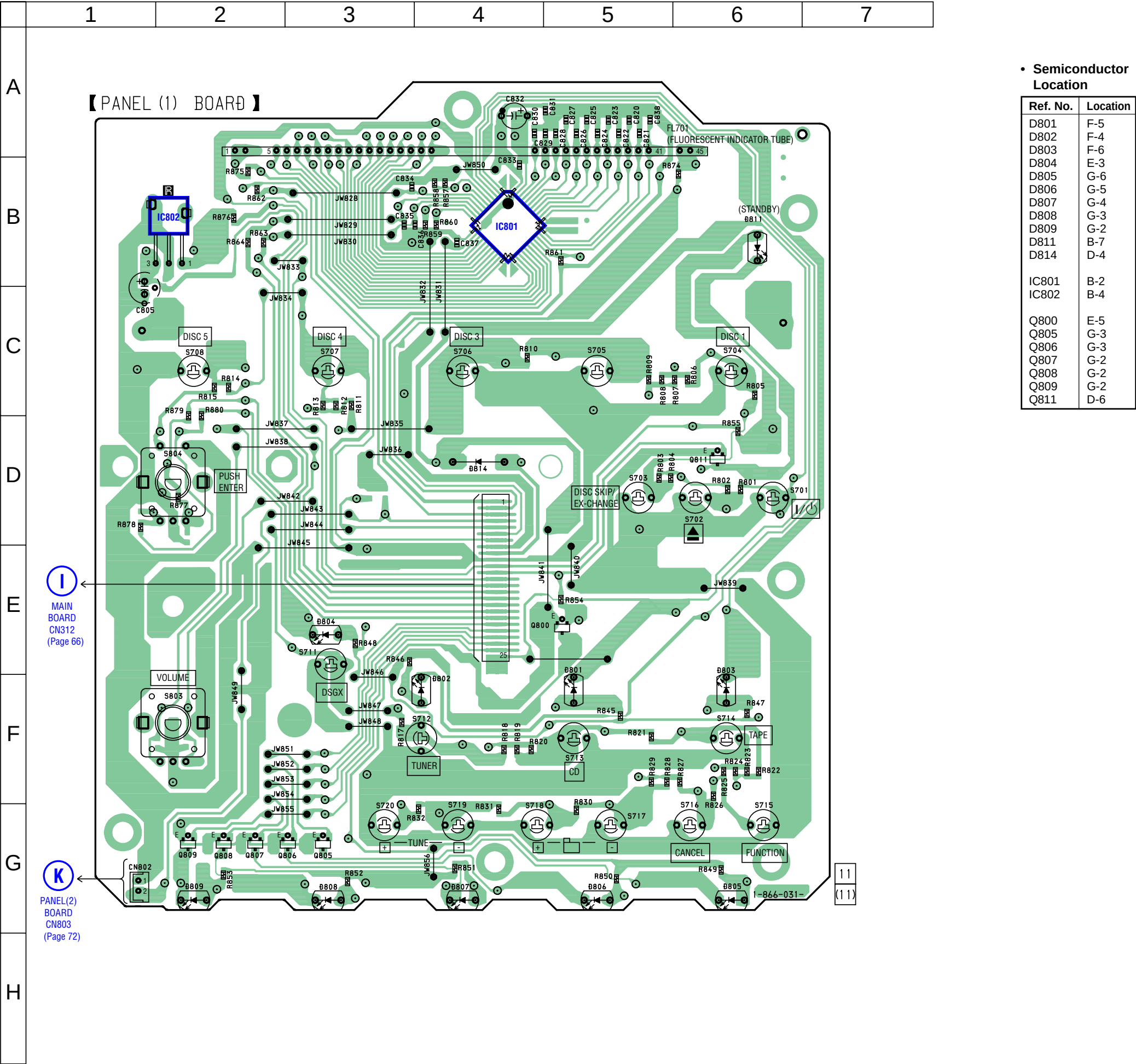
• Semiconductor Location

Ref. No.	Location
D501	D-5
D603	B-4
D607	B-3
D608	B-3
D609	B-3
D610	E-2
D612	E-2
D901	C-2
IC601	C-6
IC602	E-3
Q501	B-5
Q502	D-6
Q551	A-5
Q552	D-5
Q602	B-4
Q603	B-4
Q604	B-5
Q605	E-4
Q606	E-4
Q607	B-3
Q608	B-3
Q609	E-2
Q610	E-2
Q611	D-2

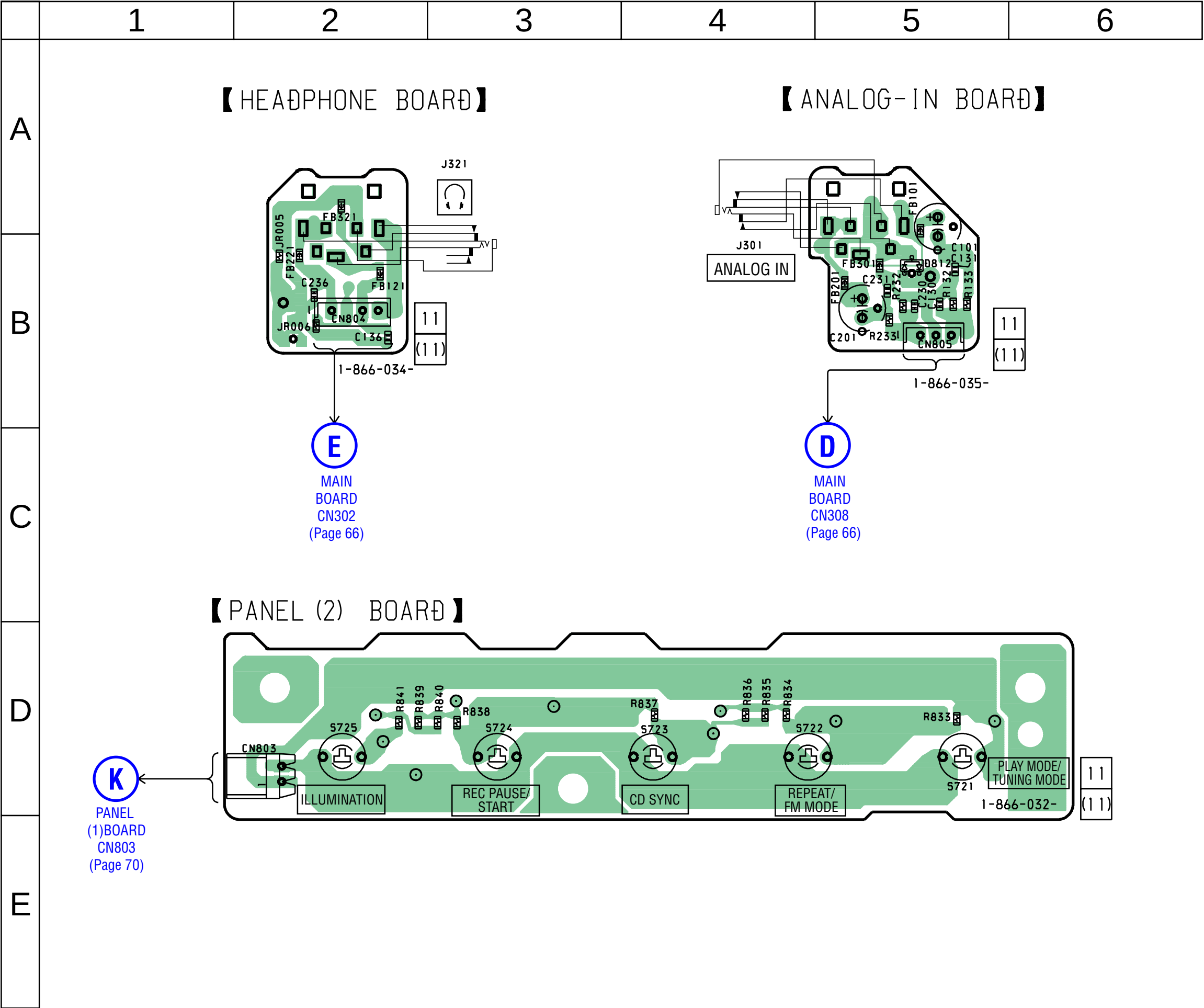
7-13. SCHEMATIC DIAGRAM — AMP SECTION — • See page 76 for IC Block Diagrams.



7-14. PRINTED WIRING BOARD — PANEL (1) BOARD — • See page 55 for Circuit Boards Location.  :Uses unleaded solder.



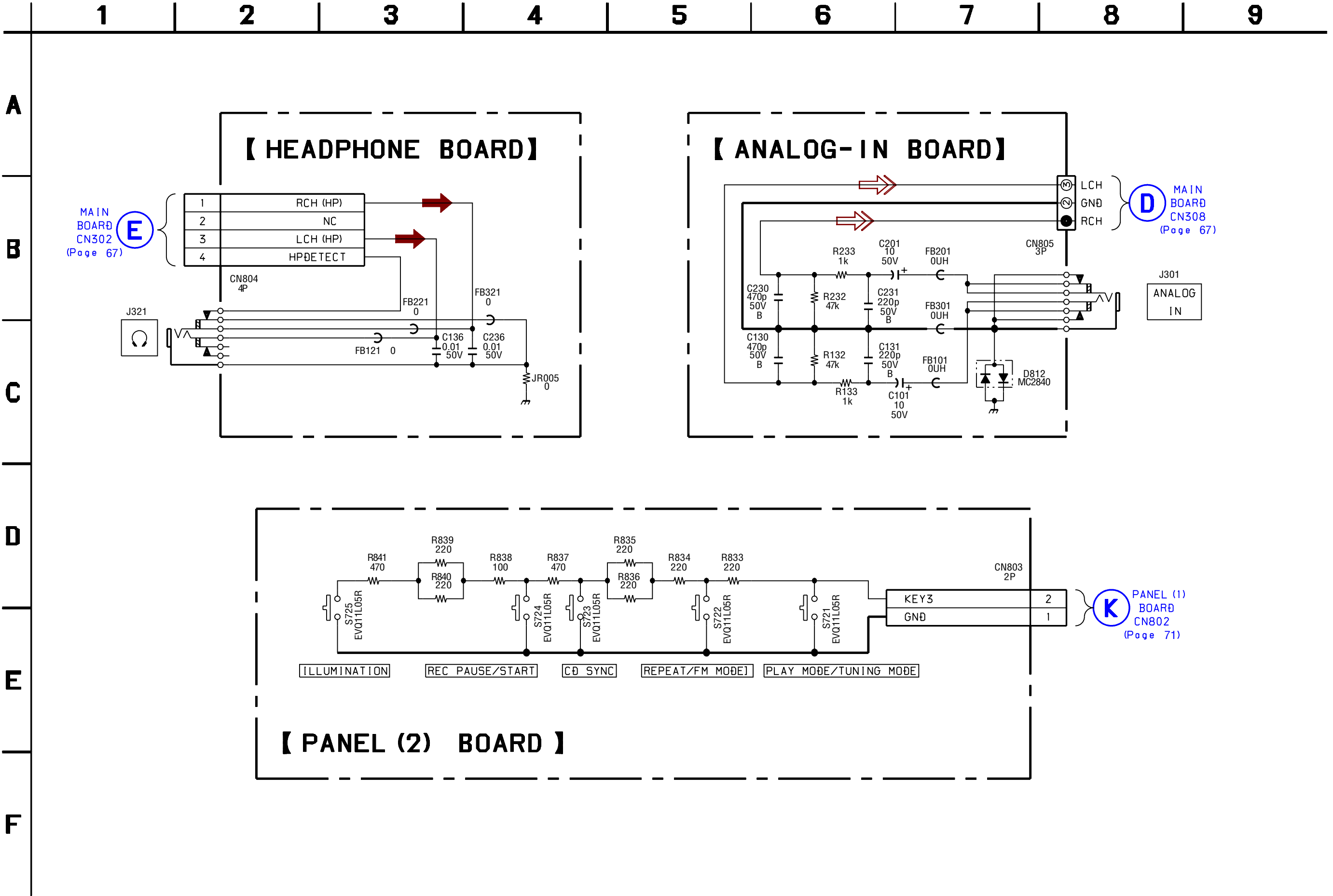


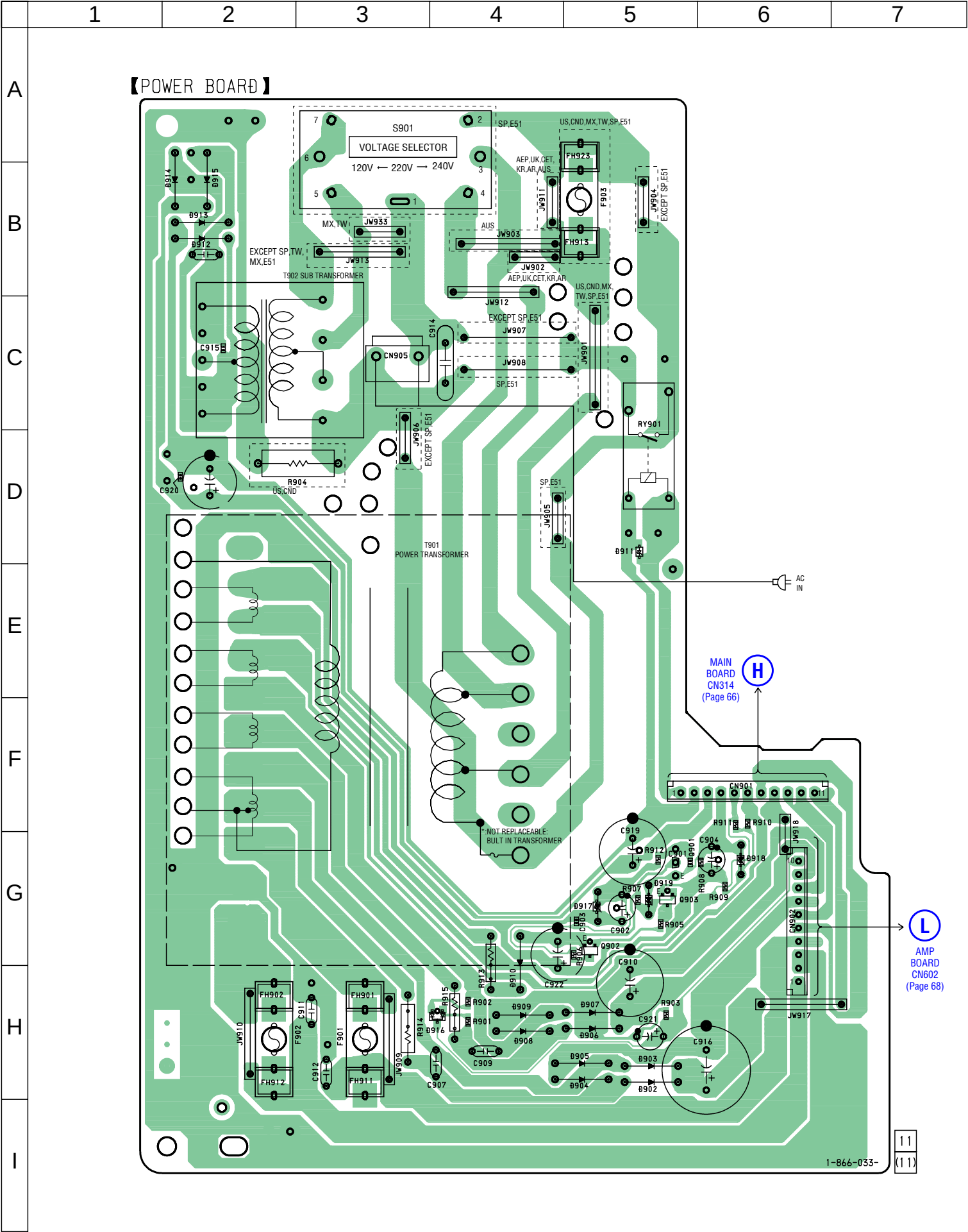


K

PANEL
(1)BOARD
CN803
(Page 70)

7-17. SCHEMATIC DIAGRAM — HEADPHONE SECTION —



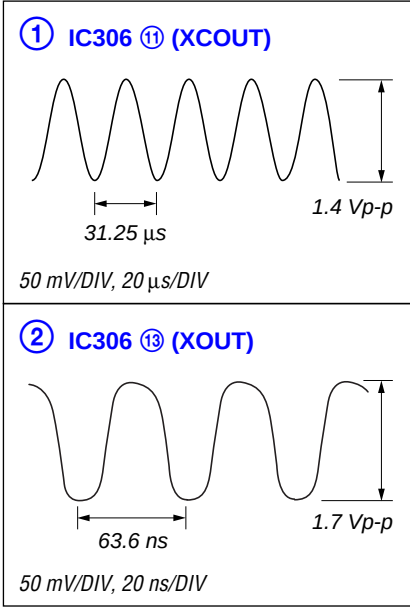


• Semiconductor Location

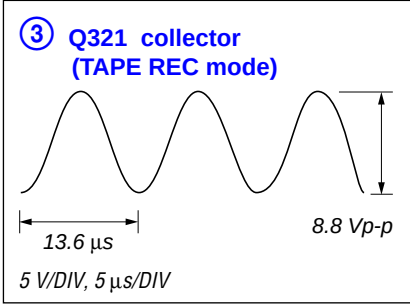
Ref. No.	Location
D902	H-5
D903	H-5
D904	H-5
D905	H-5
D906	H-5
D907	H-5
D908	H-4
D909	H-4
D910	H-4
D911	D-5
D912	B-2
D913	B-2
D914	B-2
D915	B-2
D916	H-3
D917	G-4
D918	G-6
D919	G-5
Q901	G-5
Q902	G-5
Q903	G-5



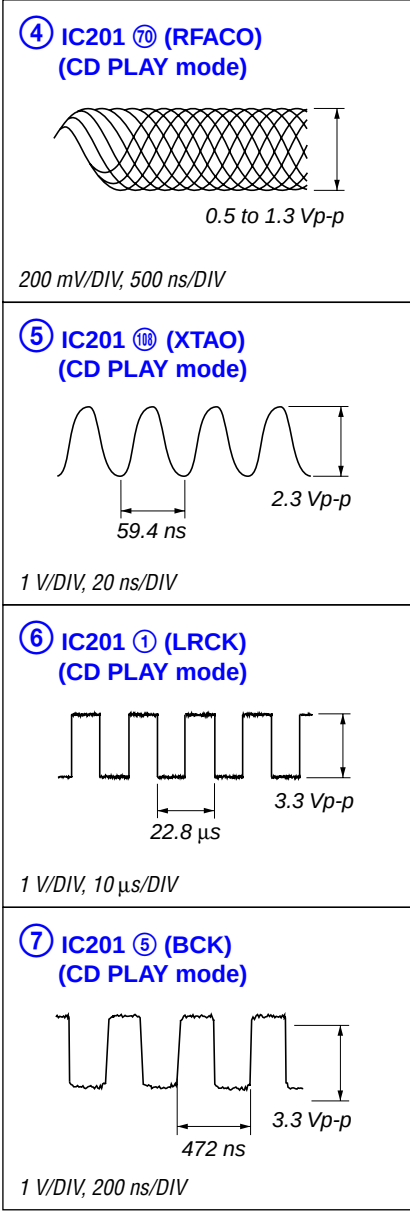
• Waveforms
– MAIN Board –



– AU-TC Board –

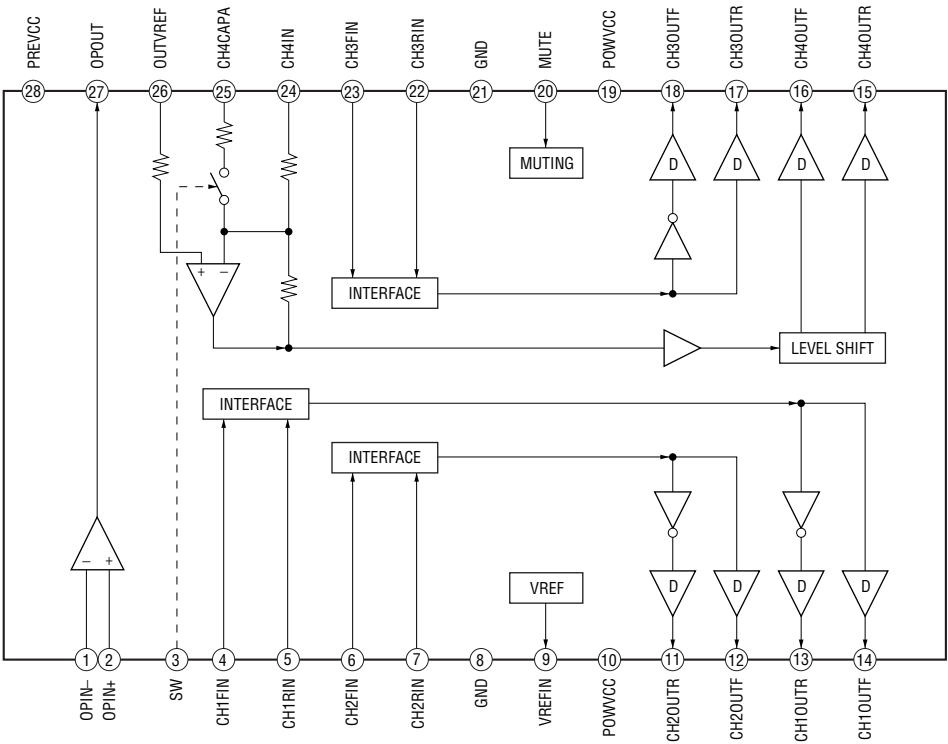


– BD Board –



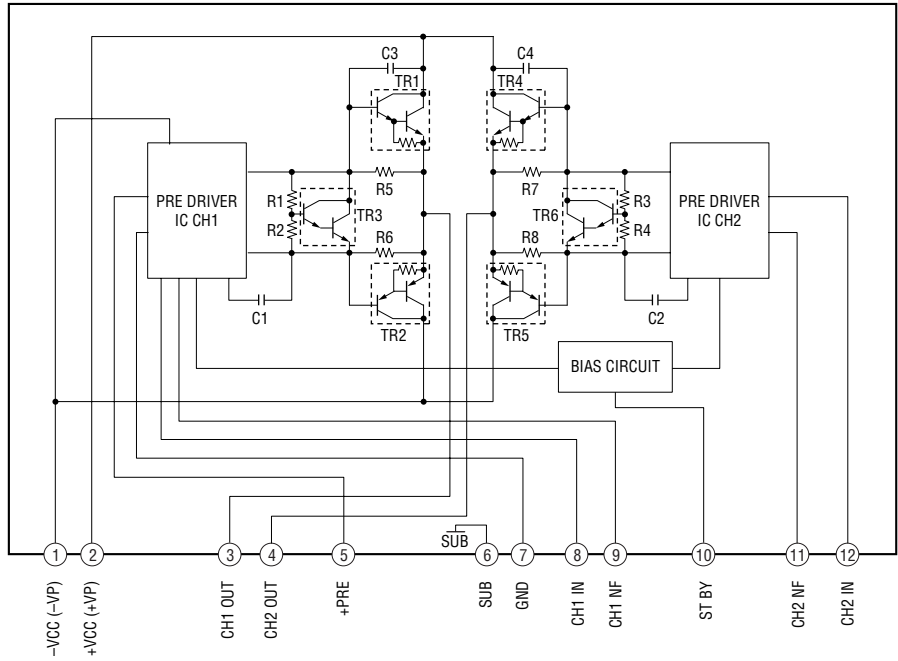
• IC Block Diagrams
– BD Board –

IC402 BA5947FM-E2

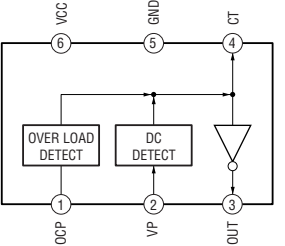


– AMP Board –

- IC601 STK433-060 (HPZ7:CND)
IC601 STK433-070 (HPZ7:AEP,UK,CET)
IC601 STK403-090-S (HPZ9)

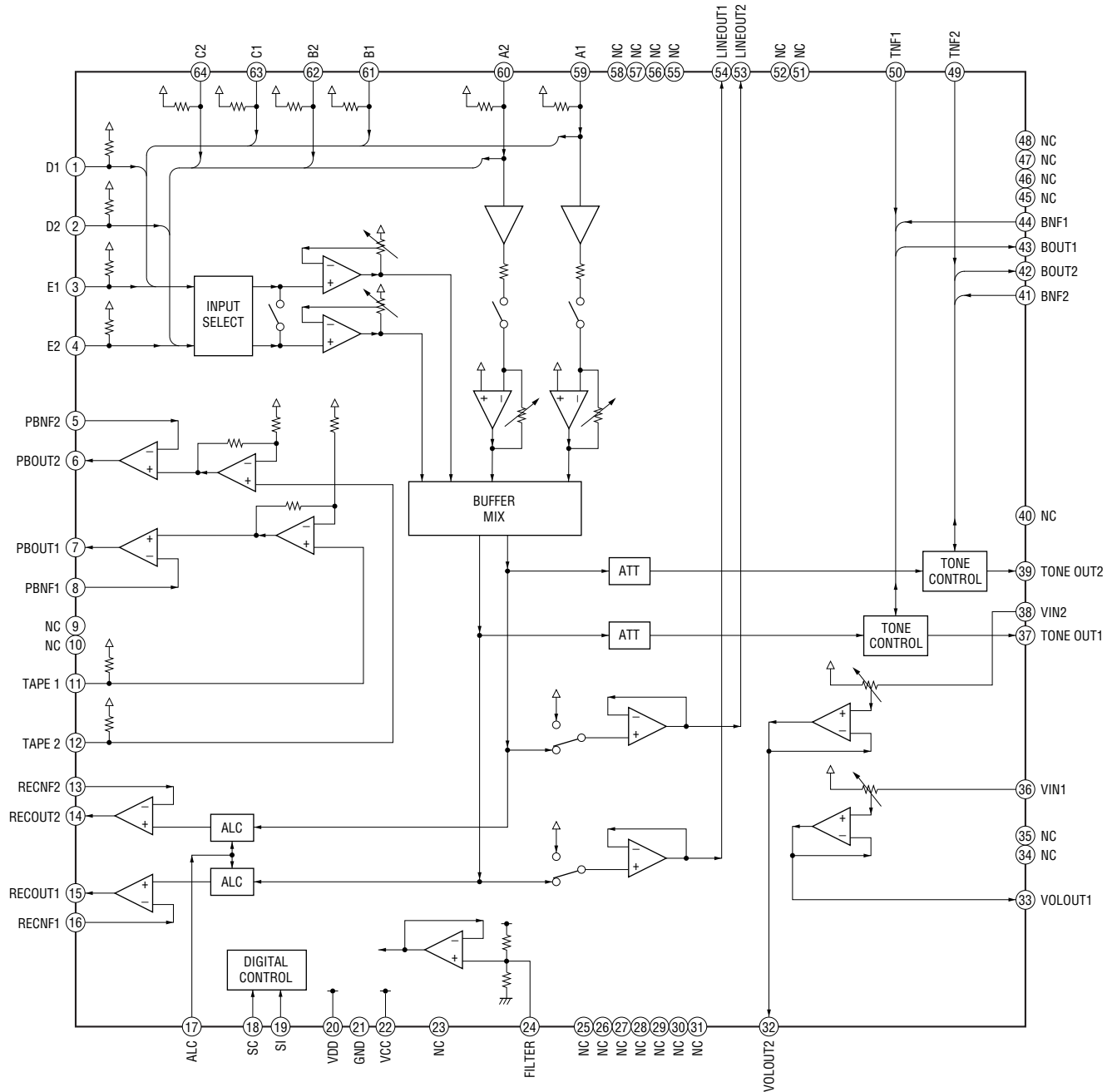


IC602 RT8H015C-T112-1



- AU-TC Board -

IC302 BD3402AKS2

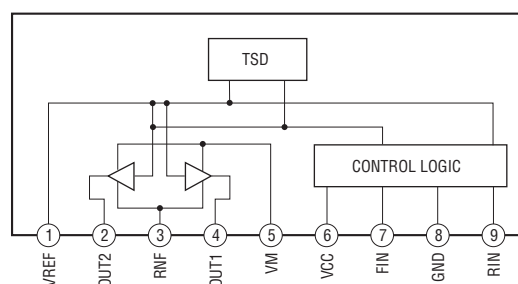


- RELAY Board -

IC801, IC811 BA6956AN

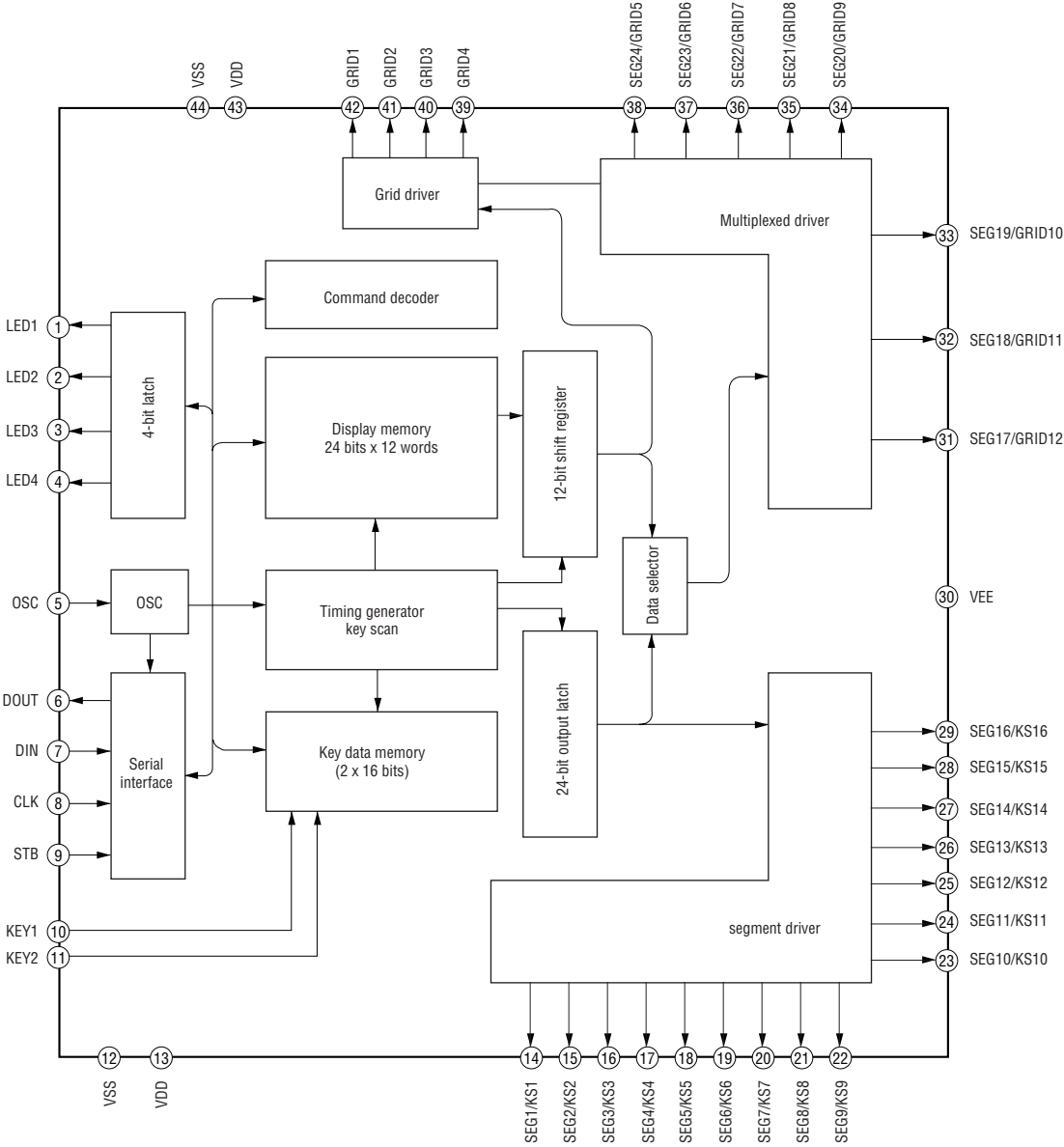
- MOTOR Board -

IC701 BA6956AN



- PANEL (1) Board -

IC801 uPD16315GB-3BS



• IC Pin Function Description

BD BOARD IC201 CXD3014-201R (RF AMP, DSP, MP3)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output
2	LRCKI	I	L/R sampling clock signal input
3	PCMD	O	PCM data output
4	PCMDI	I	PCM data input
5	BCK	O	Bit clock signal output
6	BCKI	I	Bit clock signal input
7	XTACN	I	Oscillation circuit
8	XRST	I	System reset signal input
9	VSS	—	Internal digital ground
10	IREQ-MP3	O	Data transfer request signal output to the system controller
11	CLOCK	I	Serial data transfer clock input from the system controller
12	D ATA2	I	Serial data input from the system controller
13	XLAT-MP3	I	Serial data latch pulse input from the system controller
14	REQ-MP3	I	Data transfer request signal input from the system controller
15	ACK-MP3	O	Acknowledge signal output to the system controller
16	XLAT	I	Latch input from the system controller
17	VDD	—	Power supply (+2.5V)
18	SVSS	—	Internal digital ground
19	SVDD	—	Power supply (+2.5V)
20	SENS	O	SENS output to the system controller
21	WFCK	O	WFCK output (Not used)
22	XUGF	O	XUGF output (Not used)
23	XPCK	O	XPCK output (Not used)
24	GFS	O	GFS output (Not used)
25	C2PO	O	C2PO output (Not used)
26	SCOR	O	High output when the subcode sync, S0 or S1, is detected
27	VDD	—	Power supply (+2.5V)
28	COUT	I/O	Track number count signal input/output (Not used)
29	SVSS	—	Internal digital ground
30	SVDD	—	Power supply (+2.5V)
31	MIRR	I/O	Mirror signal input/output (Not used)
32	DFCT	I/O	Defect signal input/output (Not used)
33	FOK	I/O	Focus OK signal input/output (Not used)
34	VSS	—	Internal digital ground
35	VDD	—	Power supply (+2.5V)
36	VSS	—	Internal digital ground
37	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high , this pin outputs a high signal If GFS is low eight consecutive (Not used)
38	MDP	O	Spindle motor servo control output
39	SSTP	I	Disk innermost detection signal input
40	IOVSS1	—	Internal digital ground
41	SFDR	O	Sled drive output
42	SRDR	O	Sled drive output
43	TFDR	O	Tracking drive output
44	TRDR	O	Tracking drive output
45	FFDR	O	Focus drive output
46	FRDR	O	Focus drive output

Pin No.	Pin Name	I/O	Description
47	IOVDD1	—	I/O digital power supply (+3.3V)
48	AVDD0	—	Analog power supply (+3.3V)
49	AVSS0	—	Analog ground
50	E	I	E signal input
51	F	I	F signal input
52	TEI	I	Tracking error signal input to DSSP block
53	TEO	O	Tracking error signal output from RF amplifier block
54	FEI	I	Focus error signal input to DSSP block
55	FEO	O	Focus error signal output from RF amplifier block
56	VC	O	Center voltage output
57	A	I	A signal input
58	B	I	B signal input
59	C	I	C signal input
60	D	I	D signal input
61	AVDD4	—	Analog power supply (+3.3V)
62	RFDCO	O	RFDC signal output (Not used)
63	PDSSENS	I	Reference voltage pin for PD (Analog ground)
64	AC_SUM	O	RFAC summing amplifier output
65	EQ_IN	I	Equalizer circuit input
66	LD	O	APC amplifier output
67	PD	I	APC amplifier input
68	RFC	I	Equalizer cut-off frequency adjustment pin
69	AVSS4	—	Analog ground
70	RFACO	O	RFAC signal output
71	RFACI	I	RFAC signal input or EFM signal input
72	AVDD3	—	Analog power supply (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input
74	ASYI	I	Asymmetry comparator voltage input
75	ASYO	O	EFM full-swing output (Low = VSS, High = VDD)
76	VPCO	O	Wide-band EFM PLL charge pump output
77	VCTL	I	Wide-band EFM PLL VCO2 control voltage input
78	AVSS3	—	Analog ground
79	CLTV	I	Multiplier VCO1 control voltage input
80	FILO	O	Master PLL (slave = digital PLL) filter output
81	FILI	I	Master PLL filter input
82	PCO	O	Master PLL charge pump output
83	SVSS	—	Internal digital ground
84	SVDD	—	Power supply (+2.5V)
85	SSTB-MP3	I	Standby signal input from the system controller
86	VDD	—	Power supply (+2.5V)
87	VSS	—	Internal digital ground
88	TEST1	I	Test pin Normally ground
89	DATA	I	Serial data input from the system controller
90	CLK2	I	Serial clock input from the system controller
91	SVSS	—	Internal digital ground
92	SVDD	—	Power supply (+2.5V)
93	JTAGTOK	—	Internal digital ground
94	JTAGTDI	—	Internal digital ground
95	JTAGTDO	—	Not used

Pin No.	Pin Name	I/O	Description
96	JTAGTMS	—	Internal digital ground
97	TRST	—	Internal digital ground
98	VSS	—	Internal digital ground
99	VDD	—	Power supply (+2.5V)
100	IOVDD2	—	I/O digital power supply (+3.3V)
101	DOUT	O	Digital out output
102	TEST	I	Test pin Normally ground
103	TES1	I	Test pin Normally ground
104	IOVSS2	—	Internal digital ground
105	PLLVDD	—	Power supply (+2.5V)
106	PLLVSS	—	Internal digital ground
107	XVSS	—	Internal digital ground
108	XTAO	O	Crystal oscillation circuit output
109	XTAI	I	Crystal oscillation circuit input
110	XVDD	—	Master clock power supply (+2.5V)
111	AVDD1	—	Analog power supply (+3.3V)
112	AOUT1	O	Lch analog output
113	VREFL	O	Lch reference voltage
114	AVSS1	—	Analog ground
115	AVSS2	—	Analog ground
116	VREFR	O	Rch reference voltage
117	AOUT2	O	Rch analog output
118	AVDD2	—	Analog power supply (+3.3V)
119	IOVDD0	—	I/O digital power supply (+3.3V)
120	IOVSS0	—	Internal digital ground

MAIN BOARD IC306 M30624MGP-A39FPU0 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	CD DISCSENS 2	I	DISC 4, 5 and DISC (+1) detect signal input
2	CD DISCSENS 1	I	DISC 1 to 3 detect signal input
3	STBY LED	O	LED drive signal output terminal (power)
4	SIRCS IN/WAKE	I	SIRCS signal input terminal
5	MP3 DATA OUT	O	Serial data output to the MP3 decoder
6	MP3 DATA IN	I	Serial data input from the MP3 decoder
7	MP3 CLK	O	Serial data transfer clock signal output to the MP3 decoder
8	BYTE	I	External data bus width select signal input terminal (fixed “L”)
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT	O	Sub system clock output terminal (32.768 kHz)
12	RESET	I	System reset signal input terminal “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal (Not used)
18	RDS-CLK	I	RDS serial data transfer clock signal input terminal (only for AEP, UK, CET models)
19	CD SCOR	I	Subcode Q data request signal input terminal
20	AC-CUT	I	Power down detection signal input terminal “L”: power down
21	RDS DATA	I	RDS serial data input terminal (only for AEP, UK, CET models)
22	CD XRST	O	System reset signal output to the RF AMP
23	CD XLT	O	Latch pulse signal output to the RF AMP
24	MP3 ACK	I	Acknowledge signal input from the MP3 decoder
25	MP3 XLAT	O	Serial data latch pulse output to the MP3 decoder
26	MP3 REQ	O	Data transfer request signal output to the MP3 decoder
27	MP3 IREQ	I	Data transfer request signal input from the MP3 decoder
28	MP3 STB	O	Standby signal output to the MP3 decoder
29	IIC CLK	I/O	IIC data transfer clock signal input and output (Not used)
30	IIC DATA	I/O	IIC two-way data bus (Not used)
31	SDA	O	SDA signal output
32	SCL	O	SCL signal output
33	XTCN	O	Oscillator control signal output to the CD DSP
34	CD BD POWER	O	Power on/off control signal output for CD block
35	CD DATA	O	Serial data output to the CD DSP
36	CD SENS	I	Internal status (SENSE) input from the CD DSP
37	CD CLK	O	Serial data transfer clock signal output to the CD DSP
38	CD AMUTE	O	CD muting on/off control signal output terminal
39	FL DATA	O	Serial output to the FL/LED driver
40	ELV E3/TRE A	I	ELV pulse input from the rotary encoder
41	ELV E2/TRE B	I	ELV dial pulse input from the rotary encoder
42	ELV E1/BASS A	I	ELV dial pulse input from the rotary encoder
43	ELV E0/BASS B	I	ELV dial pulse input from the rotary encoder
44	SW4 (8CM)	I	CD disc size detection (8cm) signal input terminal
45	SW3 (PUSH-CLOSE)	I	CD push-close switch input terminal
46	SW2-1 (CLOSE)	I	CD close switch input terminal
47	SW2-2 (LOD POSITION)	I	CD loading position switch input terminal
48	SW1 (OPEN)	I	CD open switch input terminal

Pin No.	Pin Name	I/O	Description
49	ELV NEG	O	Elevator up/down motor control signal output
50	ELV POS	O	Elevator up/down motor control signal output
51	LOD NEG	O	Loading motor control signal output
52	LOD POS	O	Loading motor control signal output
53	CDM80 LOAD-OUT	O	Loading motor control signal output (loading out direction)
54	CDM80 LOAD-IN	O	Loading motor control signal output (loading in direction)
55	(TRIGGER) CDM80 SW3	I	12cm DISC switch “L”: switch on
56	(OUT SW) CDM80 SW1	I	Out switch input terminal “L”: switch on
57	(CHUCK SW) CDM80 SW2	I	Chuck switch input terminal “L”: switch on
58	TC PLAY	I	Tape play switch input terminal
59	TC TRG	O	Plunger driver signal output terminal “L”: plunger on
60	TC CAPM CONT	O	Capstan/reel motor drive signal output terminal “L”: forward, “H”: reverse
61	BIAS ON	O	REC bias on/off control signal output terminal “H”: REC bias on
62	VCC	—	Power supply terminal (+3.3V)
63	TC R/P	O	PB/REC switching control signal output terminal “L”: PB
64	VSS	—	Ground terminal
65	HP DETECT	I	Headphone detection signal input
66	LINE MUTE	O	Line muting on/off control signal output terminal “H”: muting on
67	PROTECT	I	Protect signal input from the amplifier circuit “L”: protect
68	SP RELAY	O	Speaker on/off relay drive signal output terminal “L”: speaker off
69	AMP POWER	O	AMP muting on/off control signal output terminal “H”: AMP on
70	AMP DATA	O	Serial data output to the sound processor
71	AMP CLK	O	Serial data transfer clock signal output to the sound processor
72	STBY-RELAY	O	Relay drive signal output for main power supply “H”: power on
73	SW-POWER	O	Sub power block on/off control signal output terminal (Not used)
74	KEY WAKE UP	I	System wake up signal input terminal in the standby status
75	ST TUNED	I	Tuning detection signal input from the tuner unit “L”: tuned
76	ST CE	O	Chip enable signal output to the FM/AM tuner unit
77	ST DATA OUT	O	Serial data output to the FM/AM tuner unit
78	DIN/STEREO	I	FM stereo detection signal input from the tuner unit “L”: stereo
79	ST CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit
80	FL STB	O	Serial data read strobe signal output to the FL/LED driver
81	FL CLK	O	Serial data transfer clock signal output to the FL/LED driver
82	DISC1 LED	O	DISC1 LED control signal output
83	DISC2 LED	O	DISC2 LED control signal output
84	DISC3 LED	O	DISC3 LED control signal output
85	DISC4 LED	O	DISC4 LED control signal output
86	DISC5 LED	O	DISC5 LED control signal output
87	FAN ON	O	Fan motor drive signal output terminal
88, 89	VOL A, VOL B	I	Volume signal input terminal
90 to 92	KEY3 to KEY1	I	Front panel key or headphone detection input terminal (A/D input)
93	SPEC-IN	I	Setting terminal for the destination
94	TC END SW	I	End switch detection from tape deck block
95	TC HALF/REC SW	I	Half/REC switch detection from tape deck block
96	AVSS	—	Ground terminal
97	SEARCH A	I	Jog dial pulse input terminal
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	—	Power supply terminal (+3.3V)
100	SEARCH B	I	Jog dial pulse input terminal

SECTION 8 EXPLODED VIEWS

NOTE:

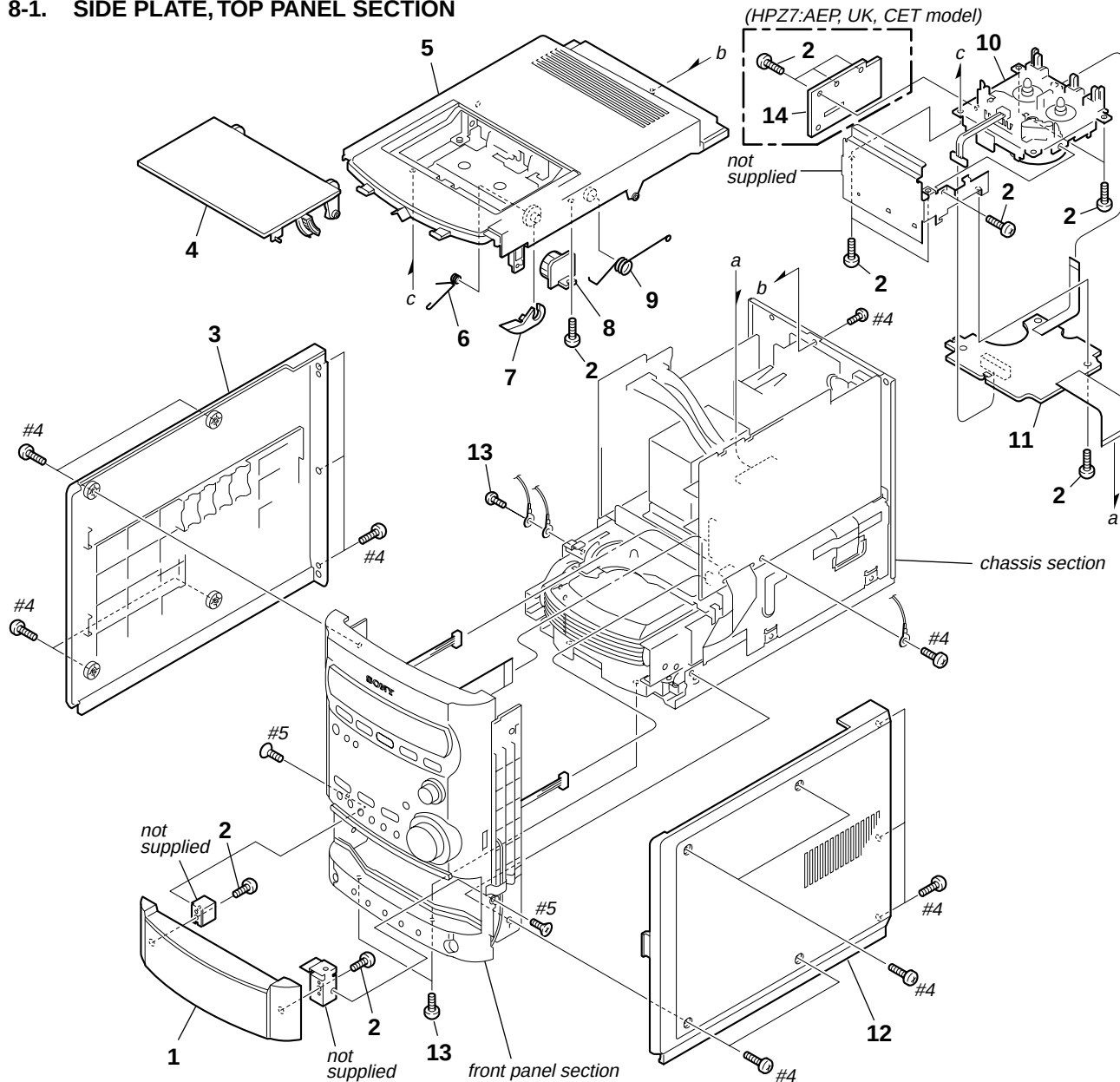
- XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- The mechanical parts with no reference number in the exploded views are not supplied.

• Abbreviation

AR	: Argentina model
AUS	: Australian model
CND	: Canadian model
CET	: East European and Russian model
E51	: Chilean and Peruvian model
KR	: Korea model
MX	: Mexican model
SP	: Singapore model
TW	: Taiwan model

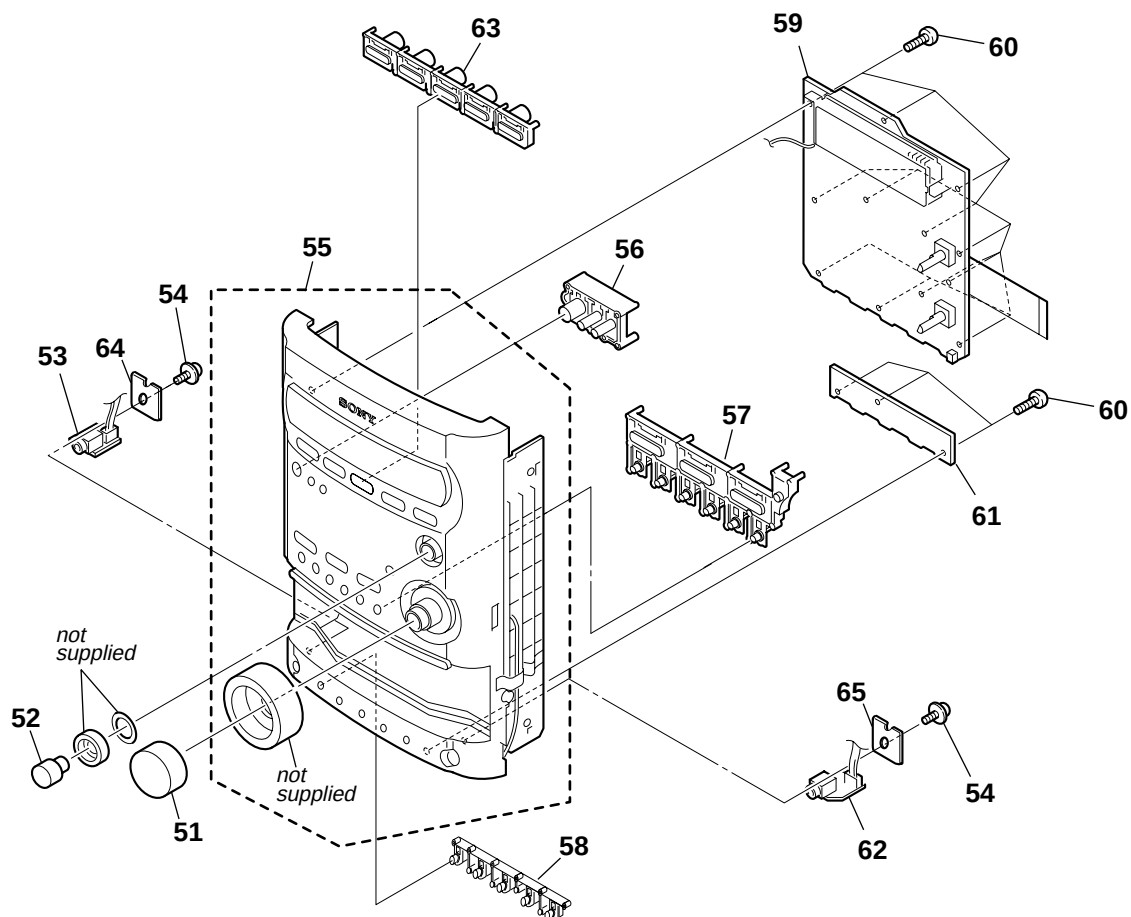
The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

8-1. SIDE PLATE, TOP PANEL SECTION

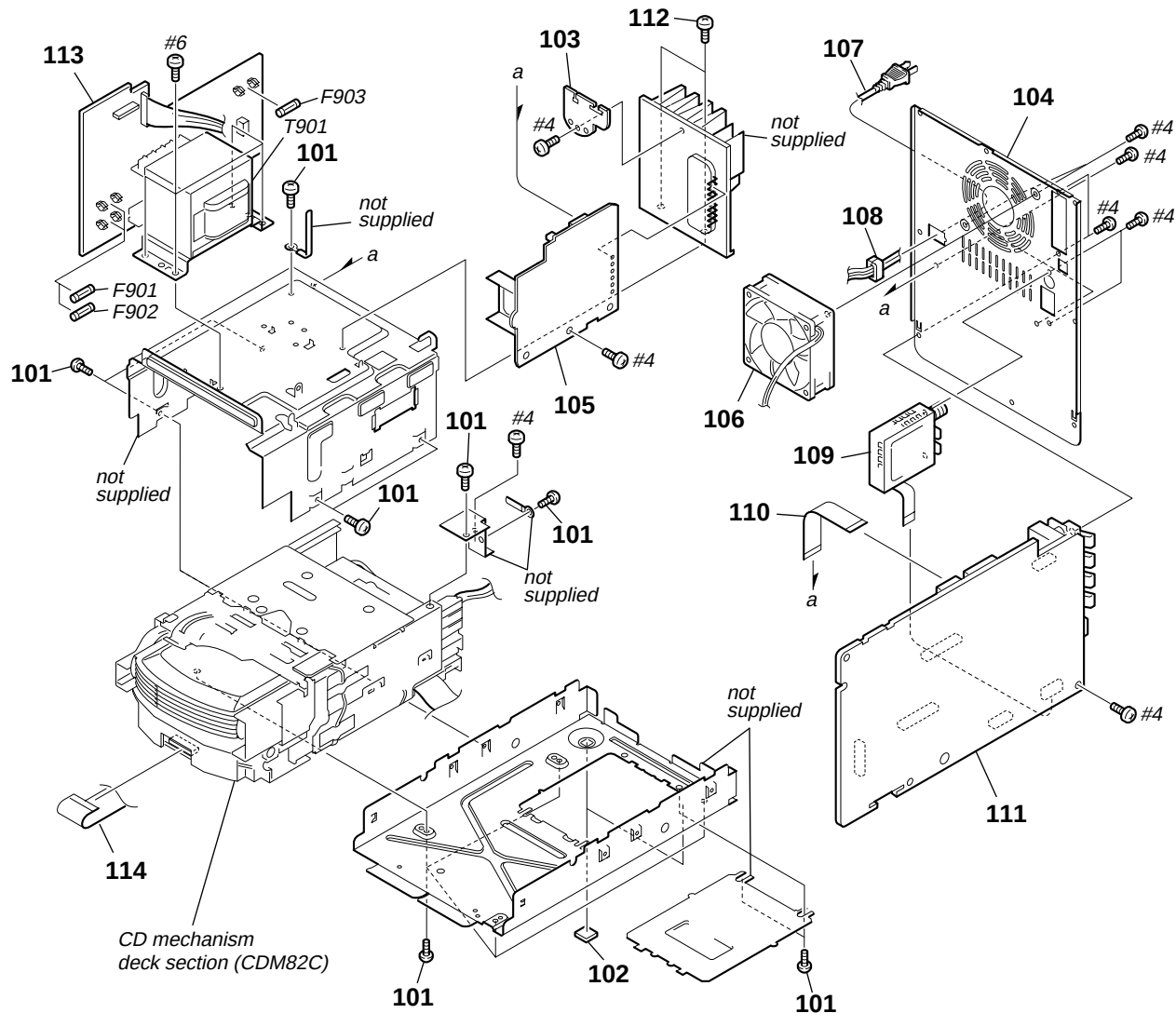
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	2-584-889-01	CD LID		11	A-1106-769-A	AU-TC BOARD, COMPLETE (AEP,UK,CET)	
2	3-254-151-01	SCREW (B2.6), (+) P TAPPING		11	A-1107-064-A	AU-TC BOARD, COMPLETE (US,CND)	
3	2-584-892-01	PLATE (L), SIDE		11	A-1107-860-A	AU-TC BOARD, COMPLETE	
4	2-584-891-01	LID, CASSETTE				(MX,TW,SP,E51,AR,AUS)	
5	2-584-890-01	CABINET (TOP)		11	A-1110-390-A	AU-TC BOARD, COMPLETE (KR)	
6	4-231-836-01	SPRING (HEART CAM-A)		12	2-584-893-01	PLATE (R), SIDE	
7	4-231-824-01	CAM (A), HEART		13	3-252-829-01	SCREW (B3), (+) BV TAPPING	
8	3-047-468-01	DAMPER		14	A-1119-681-A	SHIELD BOARD, COMPLETE (HPZ7:AEP,UK,CET)	
9	2-587-384-01	SPRING (CASSETTE)		#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)		#5	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	

8-2. FRONT PANEL SECTION



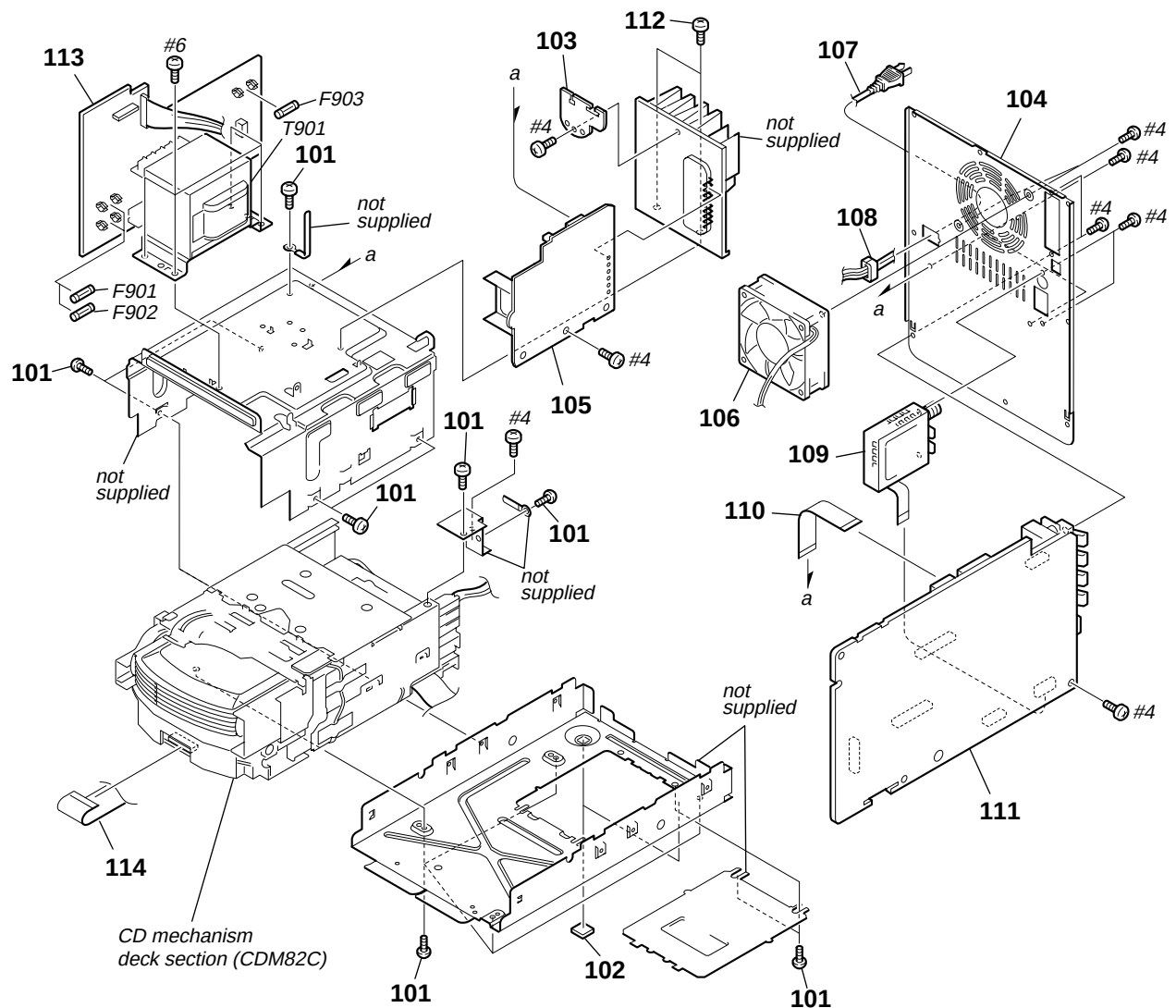
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	2-584-897-01	Knob (VOL)		59	A-1107-052-A	PANEL (1) BOARD, COMPLETE	
52	2-584-896-01	Knob (JOG)		60	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
53	A-1107-054-A	HEADPHONE BOARD, COMPLETE		61	A-1107-053-A	PANEL (2) BOARD, COMPLETE	
54	3-252-828-01	SCREW (B2.6), (+) PWH TAPPING		62	A-1107-055-A	ANALOG-IN BOARD, COMPLETE	
55	X-2055-288-1	FRONT PANEL SUB ASSY		63	X-2050-998-2	BUTTON DISC ASSY	
56	2-584-881-02	Button (POWER)		64	1-866-037-11	PWB, HP HOLDER	
57	X-2055-055-1	Button FUNCTION ASSY		65	1-866-038-11	PWB, LINE IN HOLDER	
58	2-584-888-01	Button (REC)					

8-3. CHASSIS SECTION



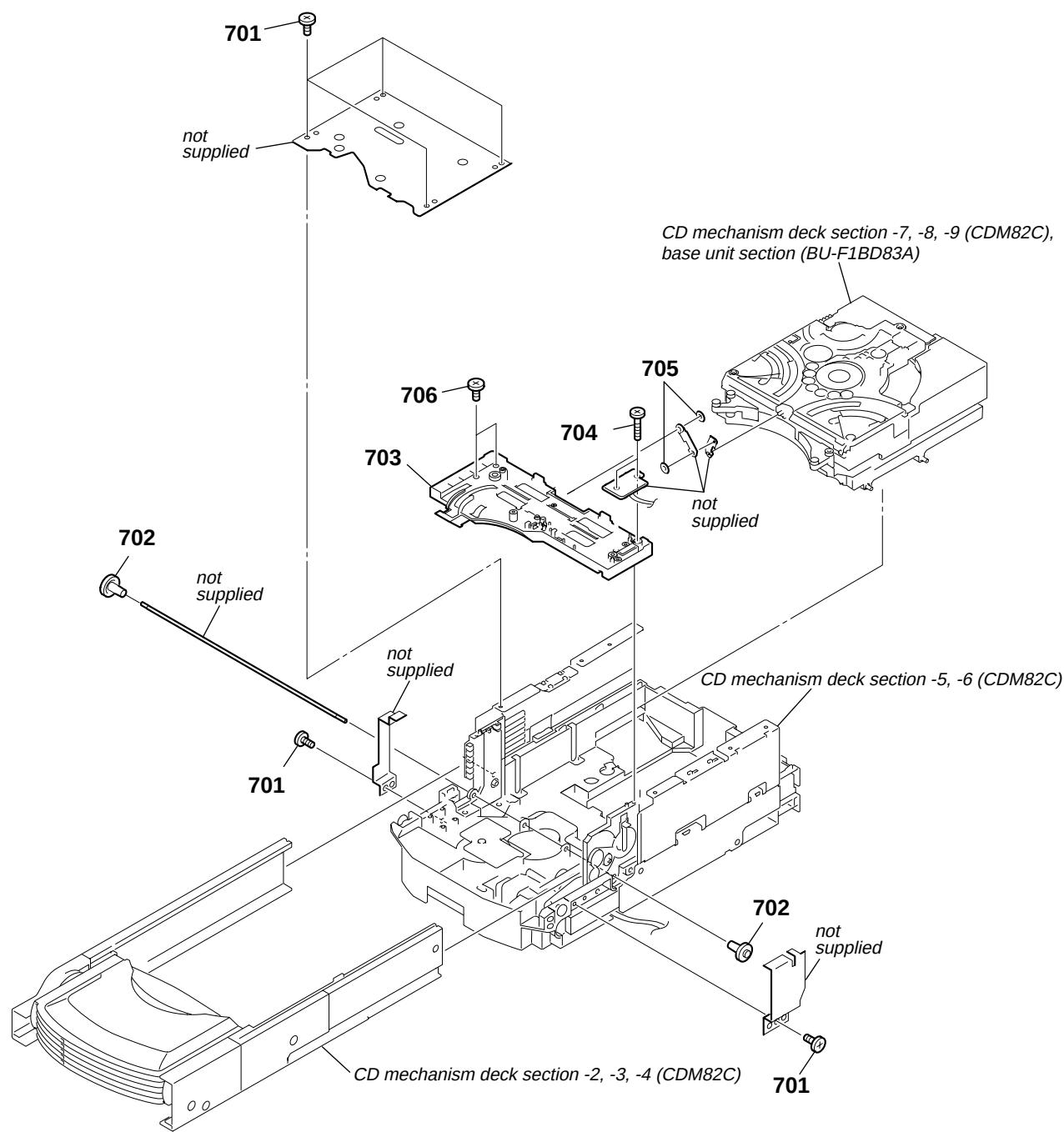
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	3-252-829-01	SCREW (B3), (+) BV TAPPING		105	A-1111-837-A	AMP BOARD, COMPLETE (HPZ7:KR)	
102	4-247-752-01	FOOT, RUBBER		106	1-787-319-11	FAN, DC	
103	A-1106-794-A	THERMISTOR BOARD, COMPLETE		△ 107	1-830-188-11	CORD, POWER (HPZ7:AEP,UK,CET)	
104	2-587-380-01	PANEL (REAR)(US)		△ 107	1-830-190-11	CORD, POWER (HPZ7:CND/HPZ9)	
104	2-587-380-11	PANEL (REAR)(HPZ9:CND)					
104	2-587-380-31	PANEL (REAR)(HPZ9:KR)		108	3-703-244-00	BUSHING (2104), CORD (EXCEPT MX)	
104	2-587-380-41	PANEL (REAR)(AR)		* 108	3-703-571-12	BUSHING (S)(4516), CORD (MX)	
104	2-591-368-11	PANEL (REAR)(HPZ7:CND)		109	1-693-684-11	TUNER (FM/AM)(US,CND)	
104	2-591-368-21	PANEL (REAR)(AEP,UK,CET)		109	1-693-685-11	TUNER (FM/AM)(MX,TW,SP,E51,AR,AUS)	
104	2-591-368-61	PANEL (REAR)(MX)		109	1-693-686-11	TUNER (FM/AM)(AEP,UK,CET)	
104	2-591-368-71	PANEL (REAR)(TW)		109	1-693-687-11	TUNER (FM/AM)(KR)	
104	2-591-368-81	PANEL (REAR)(HPZ7:KR)		110	1-828-963-11	WIRE (FLAT TYPE)(11 CORE)	
104	2-591-369-11	PANEL (REAR)(HPZ7:SP)		111	A-1107-057-A	MAIN BOARD, COMPLETE (HPZ9:US,CND)	
104	2-591-369-21	PANEL (REAR)(AUS)		111	A-1110-029-A	MAIN BOARD, COMPLETE (HPZ9:SP,AUS)	
104	2-591-369-31	PANEL (REAR)(HPZ9:SP)		111	A-1110-117-A	MAIN BOARD, COMPLETE (E51,AR)	
104	2-591-369-41	PANEL (REAR)(E51)		111	A-1110-144-A	MAIN BOARD, COMPLETE (HPZ9:KR)	
105	A-1107-060-A	AMP BOARD, COMPLETE (HPZ9:EXCEPT KR)		111	A-1110-152-A	MAIN BOARD, COMPLETE (HPZ7:CND)	
105	A-1110-153-A	AMP BOARD, COMPLETE (HPZ7:CND)		111	A-1110-163-A	MAIN BOARD, COMPLETE (MX)	
105	A-1110-177-A	AMP BOARD, COMPLETE (HPZ7:MX,TW,SP)		111	A-1110-202-A	MAIN BOARD, COMPLETE (AEP,UK,CET)	
105	A-1110-206-A	AMP BOARD, COMPLETE (AEP,UK,CET)		111	A-1110-251-A	MAIN BOARD, COMPLETE (HPZ7:TW,SP)	
105	A-1111-834-A	AMP BOARD, COMPLETE (HPZ9:KR)		111	A-1110-276-A	MAIN BOARD, COMPLETE (HPZ7:KR)	
				112	3-254-146-01	SCREW (B3), (+) BV TAPPING	

(Continued on Page 87)



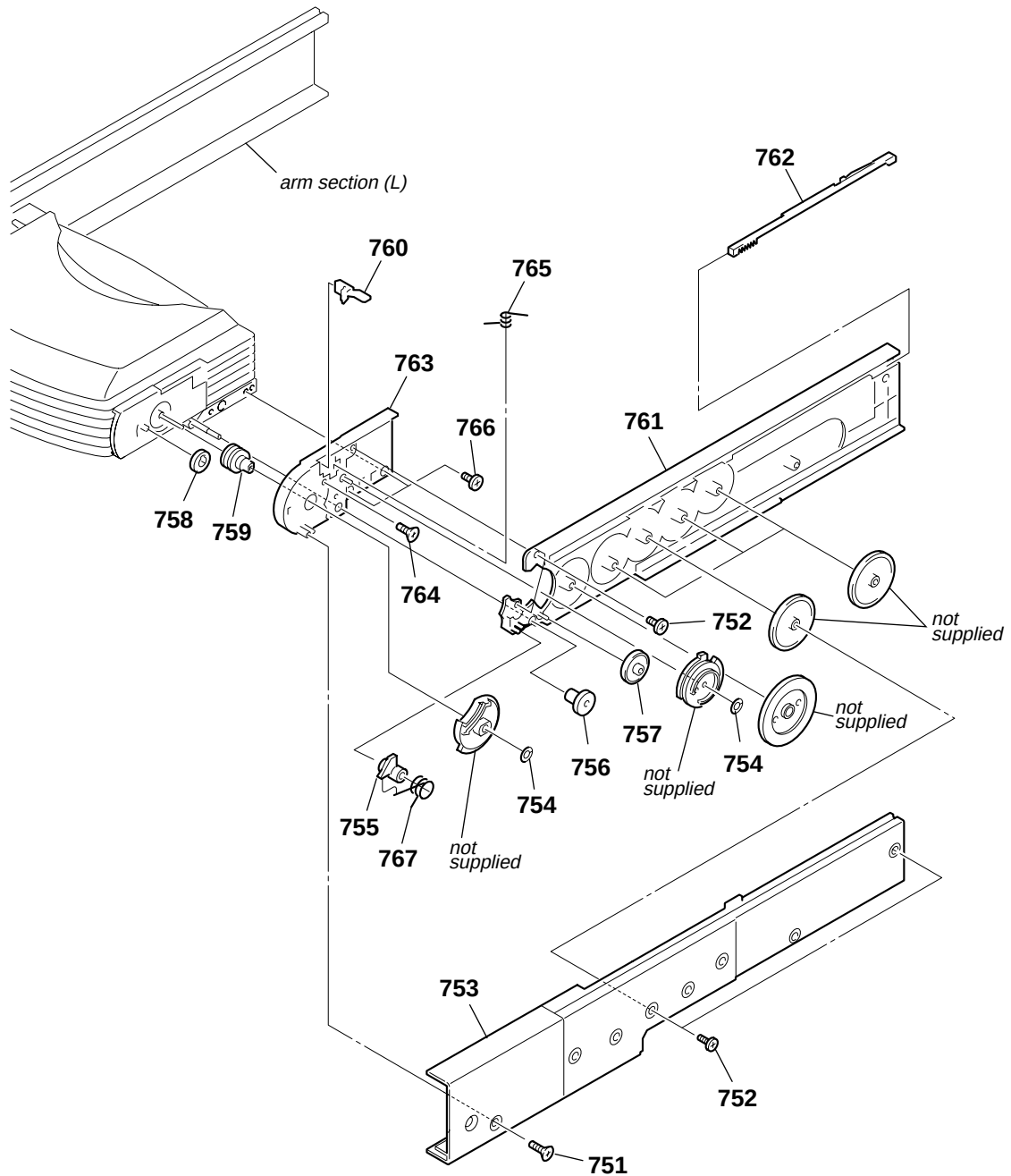
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
(Continued from Page 86)				△ F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)
113	A-1107-049-A	POWER BOARD, COMPLETE (HPZ9:US,CND)		△ F902	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)
113	A-1110-025-A	POWER BOARD, COMPLETE (AUS)		△ F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5)(3.15A/125V)	(HPZ7:CND)
113	A-1110-112-A	POWER BOARD, COMPLETE (HPZ9:SP,E51)		△ F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(US,CND)
113	A-1110-128-A	POWER BOARD, COMPLETE (HPZ9:KR,AR)		△ F903	1-533-468-12	FUSE, GLASS TUBE (DIA. 5)(2A/250V)	(HPZ7:MX,TW,SP)
113	A-1110-149-A	POWER BOARD, COMPLETE (HPZ7:CND)		△ F903	1-533-469-12	FUSE, GLASS TUBE (DIA. 5)(2.5A/250V)	(HPZ9:SP,E51)
113	A-1110-160-A	POWER BOARD, COMPLETE (MX,TW)		△ T901	1-443-681-11	TRANSFORMER, POWER (HPZ7:MX,TW,KR,SP)	
113	A-1110-195-A	POWER BOARD, COMPLETE (AEP,UK,CET)		△ T901	1-443-682-11	TRANSFORMER, POWER (HPZ7:CND)	
113	A-1110-217-A	POWER BOARD, COMPLETE (HPZ7:SP)		△ T901	1-443-683-11	TRANSFORMER, POWER (AEP,UK,CET)	
113	A-1110-386-A	POWER BOARD, COMPLETE (HPZ7:KR)		△ T901	1-443-685-11	TRANSFORMER, POWER	(HPZ9:KR,SP,E51,AR,AUS)
114	1-829-017-11	WIRE (FLAT TYPE)(21 CORE)		△ T901	1-443-686-11	TRANSFORMER, POWER (US,CND)	
△ F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)	#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
△ F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)	#6	7-685-880-09	SCREW +BVTT 4X6 (S)	
△ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(AEP,UK,MX,TW,CET,HPZ7:KR,SP)				
△ F901	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)				
△ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(HPZ7:AEP,UK,MX,TW,KR,CET,SP)				
△ F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)				

8-4. CD MECHANISM DECK SECTION-1 (CDM82C)



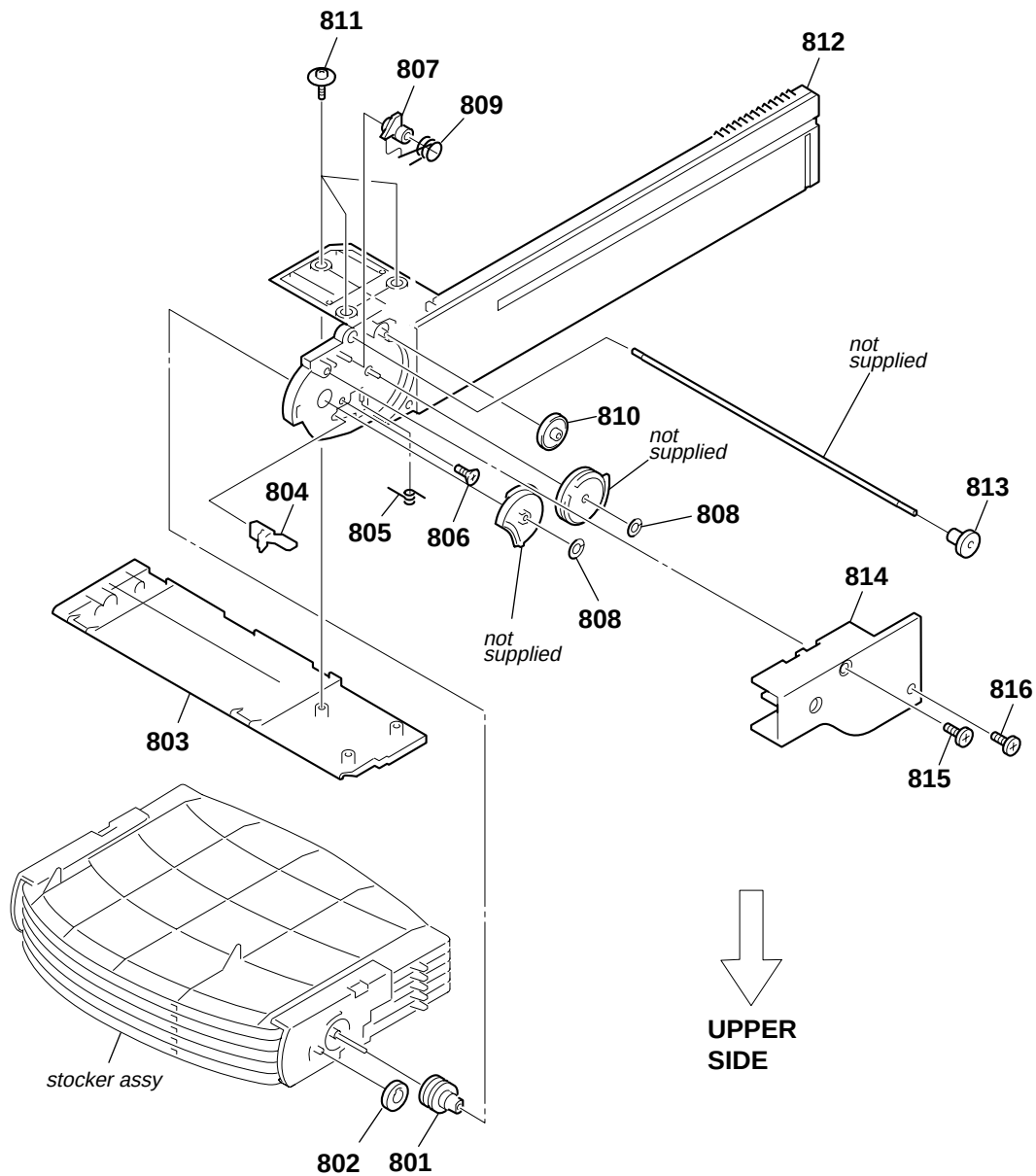
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
701	4-218-253-31	SCREW (M2.6), +BTTP		705	4-255-299-01	WASHER (DIA. 3.5)	
702	4-252-881-01	GEAR (JOINT OP)		706	4-908-618-42	SCREW (+BTP)(2X8)	
703	4-252-843-02	TOP					
704	4-253-811-01	+PTPWH 2X14					

8-5. CD MECHANISM DECK SECTION-2 (CDM82C)



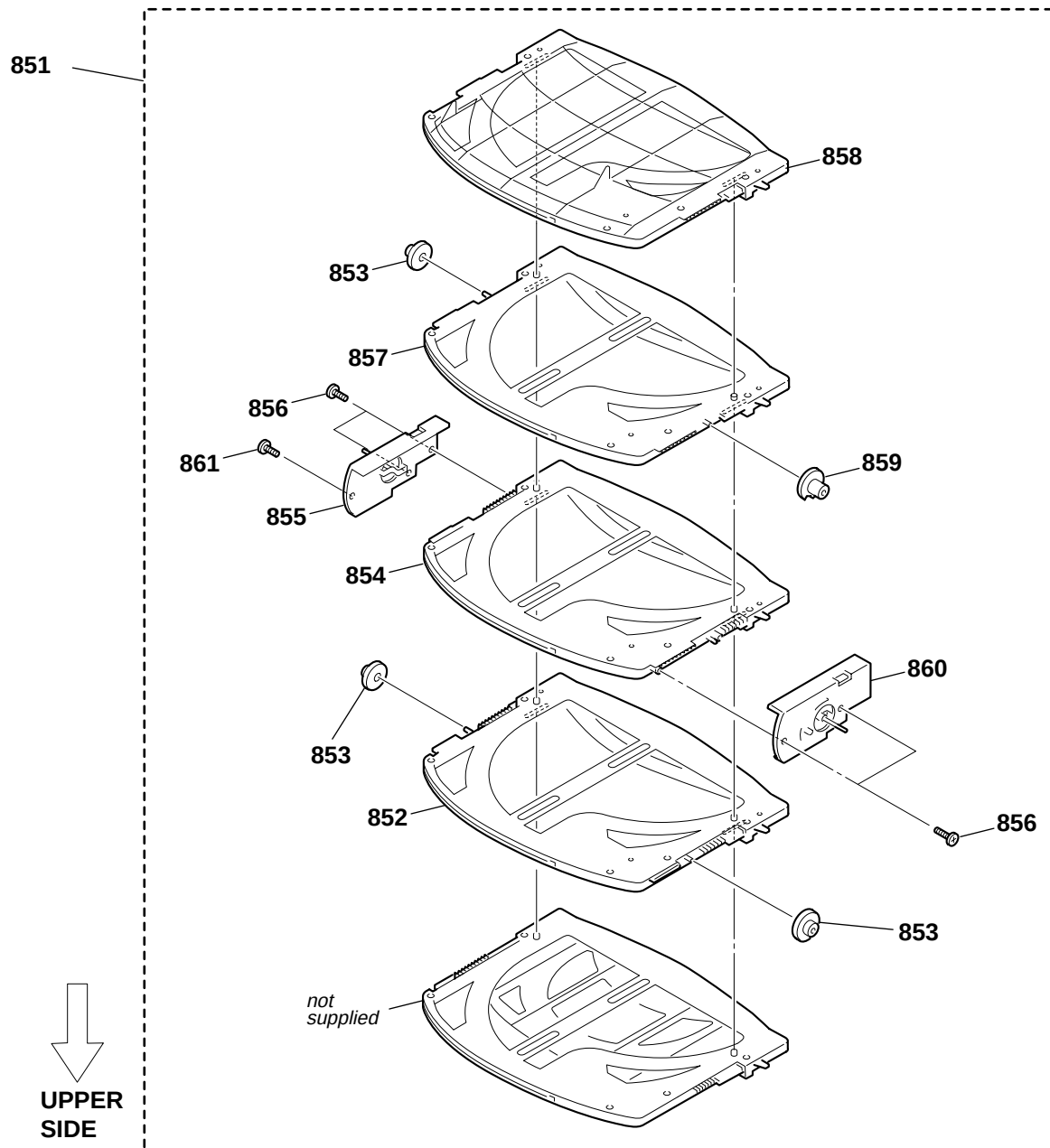
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
751	2-641-430-31	SCREW (2.6), (+) K TAPPING		760	4-252-816-01	LEVER (LOCK R)	
752	4-253-344-01	SCREW (2)		761	4-252-810-01	ARM (R)	
753	4-252-827-05	COVER (R)		762	A-1060-629-A	SLIDER ASSY, SUB	
754	2-021-250-01	WASHER (5.5)		763	4-252-808-01	BASE (A), STOCK	
755	4-255-344-01	LEVER (SUB GEAR BACK R)		764	4-253-564-01	SCREW (1.7)	
756	4-252-806-01	GEAR (STOCK JOINT)		765	4-252-818-01	SPRING (STOCK LOCK R)	
757	4-252-819-01	GEAR (JOINT JUST FRONT), SUB		766	4-218-253-62	SCREW (M2.6), +BTTP	
758	4-252-804-01	GEAR (STOCK PLANET)		767	2-021-898-02	SPR-T (SUB GEAR BACK R)	
759	4-252-802-01	GEAR (STOCK SUN)					

8-6. CD MECHANISM DECK SECTION-3 (CDM82C)



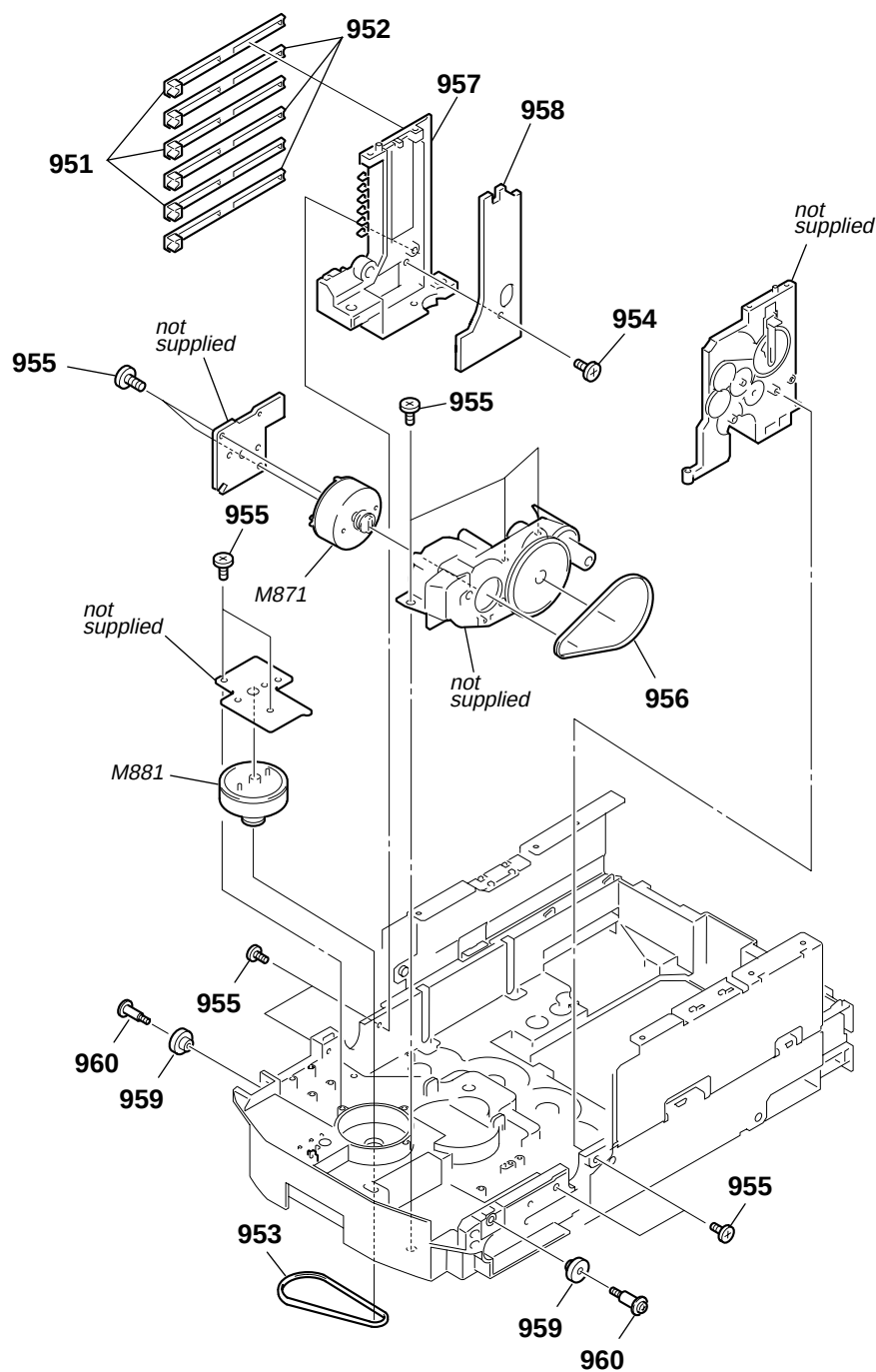
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
801	4-252-802-01	GEAR (STOCK SUN)		810	4-252-819-01	GEAR (JOINT JUST FRONT), SUB	
802	4-252-804-01	GEAR (STOCK PLANET)		811	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
803	4-253-802-02	BASE (B), STOCK		812	4-252-809-03	ARM (L)	
804	4-252-815-01	LEVER (LOCK L)		813	4-252-806-01	GEAR (STOCK JOINT)	
805	4-252-817-01	SPRING (STOCK LOCK L)		814	4-252-826-01	COVER (L)	
806	4-253-564-01	SCREW (1.7)		815	2-641-430-31	SCREW (2.6), (+) K TAPPING	
807	4-255-345-01	LEVER (SUB GEAR BACK L)		816	4-253-344-01	SCREW (2)	
808	2-021-250-01	WASHER (5.5)					
809	4-255-340-02	SPR-T (SUB GEAR BACK L)					

8-7. CD MECHANISM DECK SECTION-4 (CDM82C)



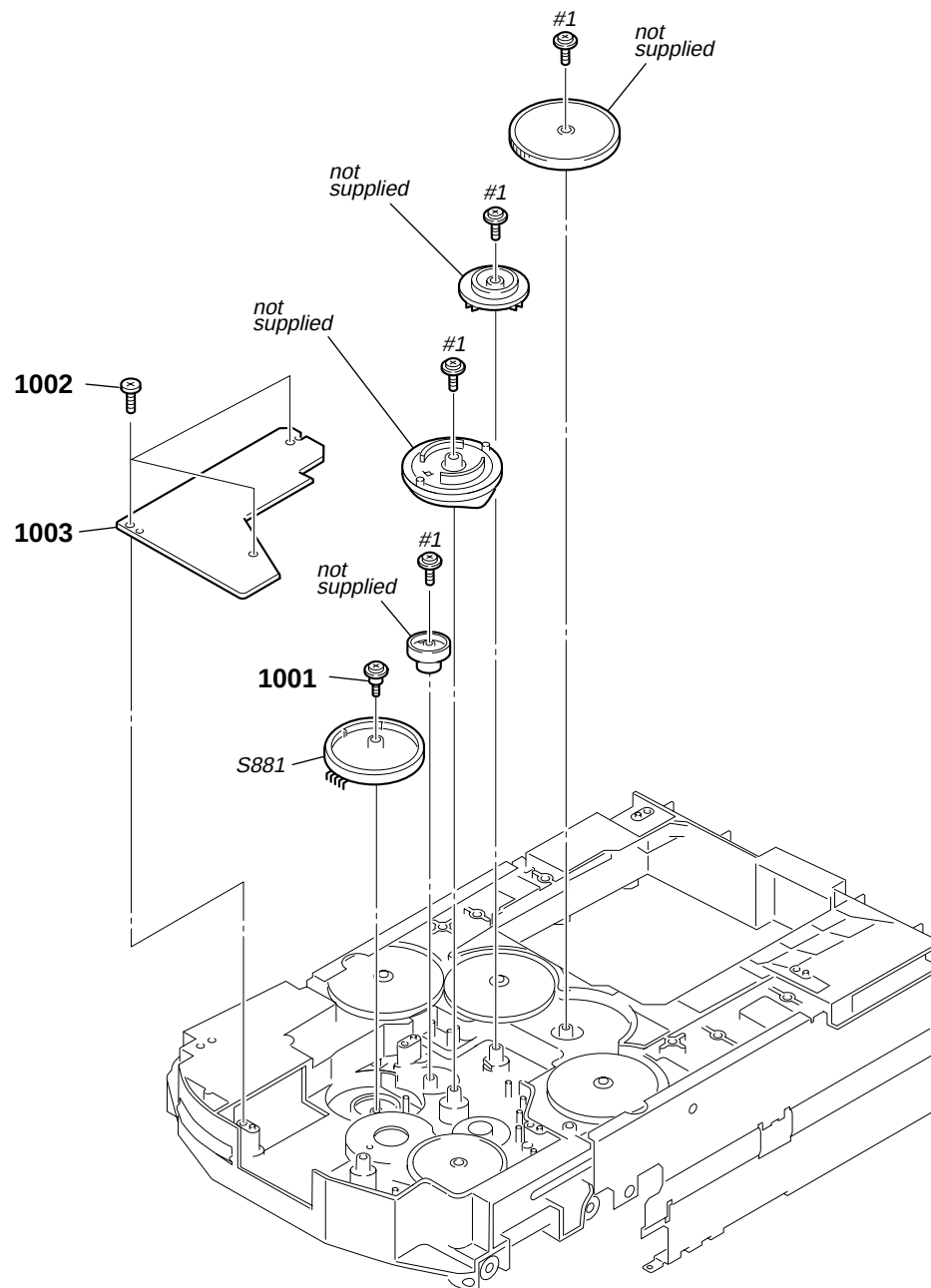
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
851	A-1090-349-A	STOCKER ASSY		857	A-1060-627-A	STOCKER (2) ASSY	
852	A-1060-625-A	STOCKER (4) ASSY		858	A-1060-628-A	STOCKER (1) ASSY	
853	4-252-800-01	GEAR (STOCK LOT SHORT)		859	4-252-801-01	GEAR (STOCK LOT LONG)	
854	A-1060-626-A	STOCKER (3) ASSY		860	4-252-799-04	BOX (R), STOCK	
855	4-252-798-05	BOX (L), STOCK		861	2-149-046-01	SCREW (1.7 BOX), STEP TAPPING	
856	4-253-344-01	SCREW (2)					

8-8. CD MECHANISM DECK SECTION-5 (CDM82C)



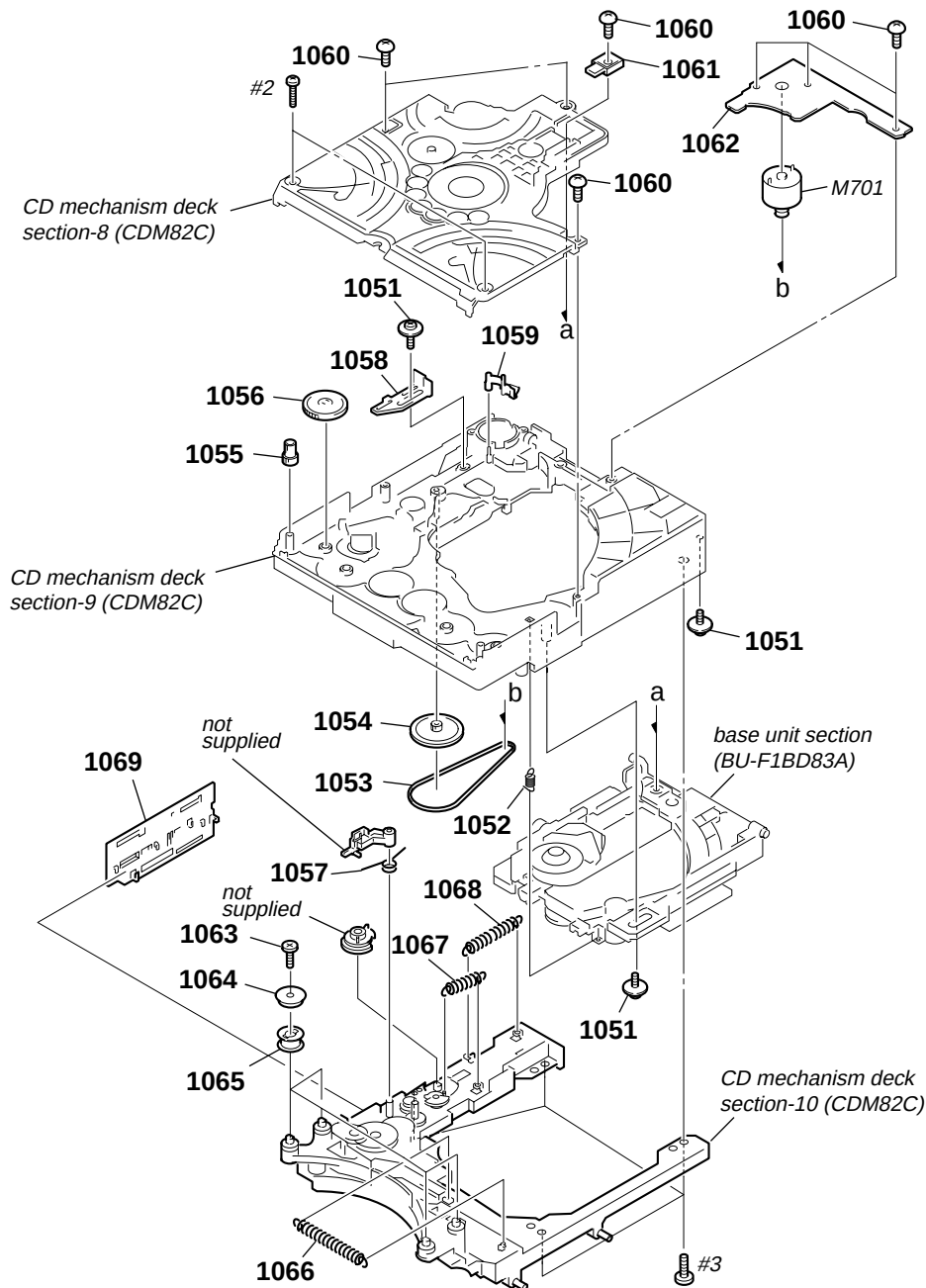
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
951	4-252-829-01	SLIDER (PUSH POPUP1)		957	4-252-828-05	CHASSIS (L), SUB	
952	4-252-830-01	SLIDER (PUSH POPUP2)		958	A-1092-131-A	SW , DISC BOARD, COMPLETE	
953	4-252-883-01	BELT (MOT UD)		959	4-252-884-01	ROLLER	
954	4-218-253-62	SCREW (M2.6), +BTTP		960	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
955	4-218-253-31	SCREW (M2.6), +BTTP					
				M871	A-1060-630-A	MOTOR ASSY (LOD)	
956	4-252-866-01	BELT (MOT OP)		M881	A-1060-630-A	MOTOR ASSY (ELV)	

8-9. CD MECHANISM DECK SECTION-6 (CDM82C)



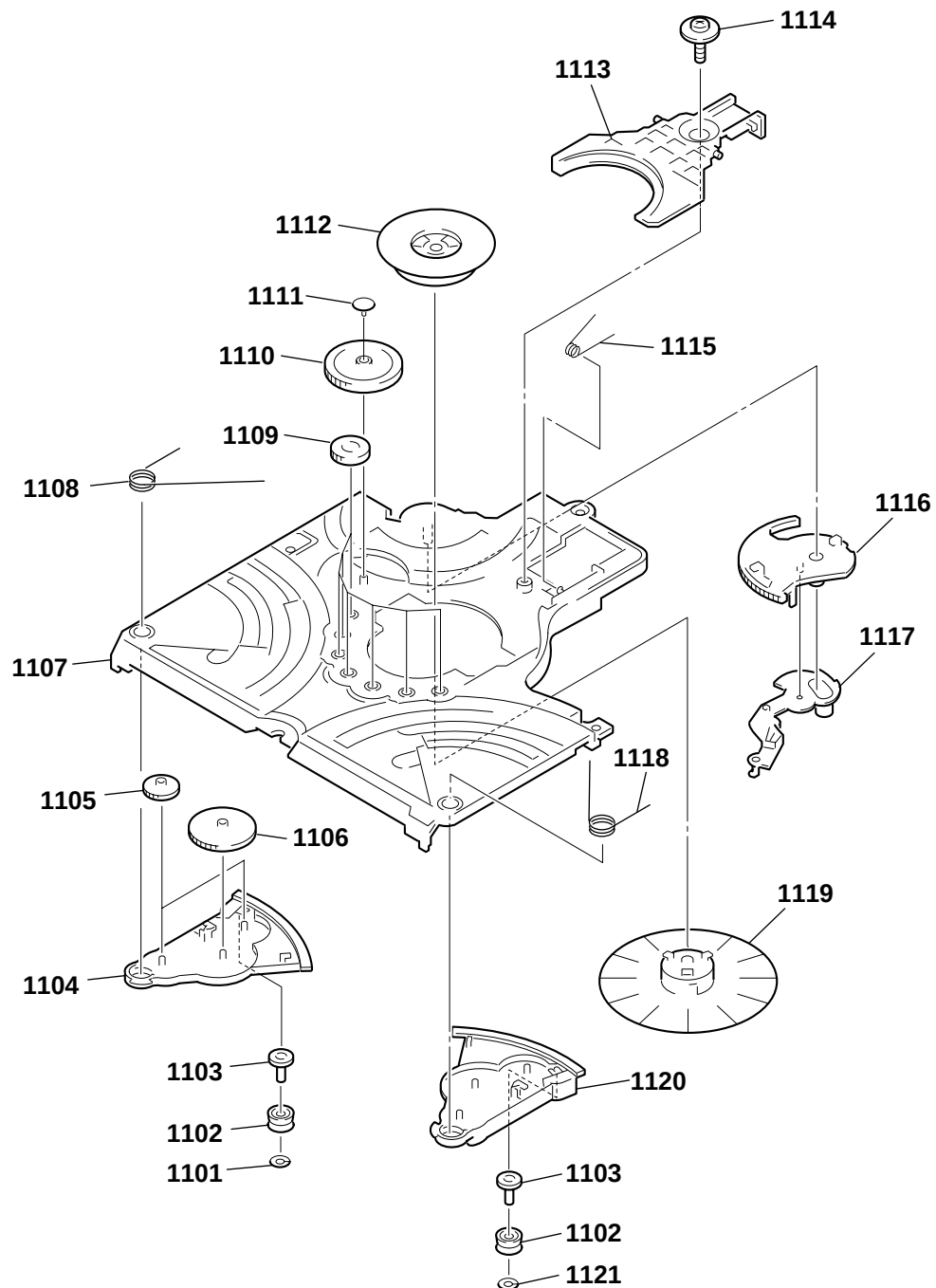
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1001	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING		S881	1-478-706-11	ENCODER, ROTARY	
1002	4-218-253-62	SCREW (M2.6), +BTTP		#1	7-685-902-21	SCREW +PTPWH 2.6X8 (TYPE2)	
1003	A-1119-164-A	RELAY BOARD, COMPLETE					

8-10. CD MECHANISM DECK SECTION-7 (CDM82C)



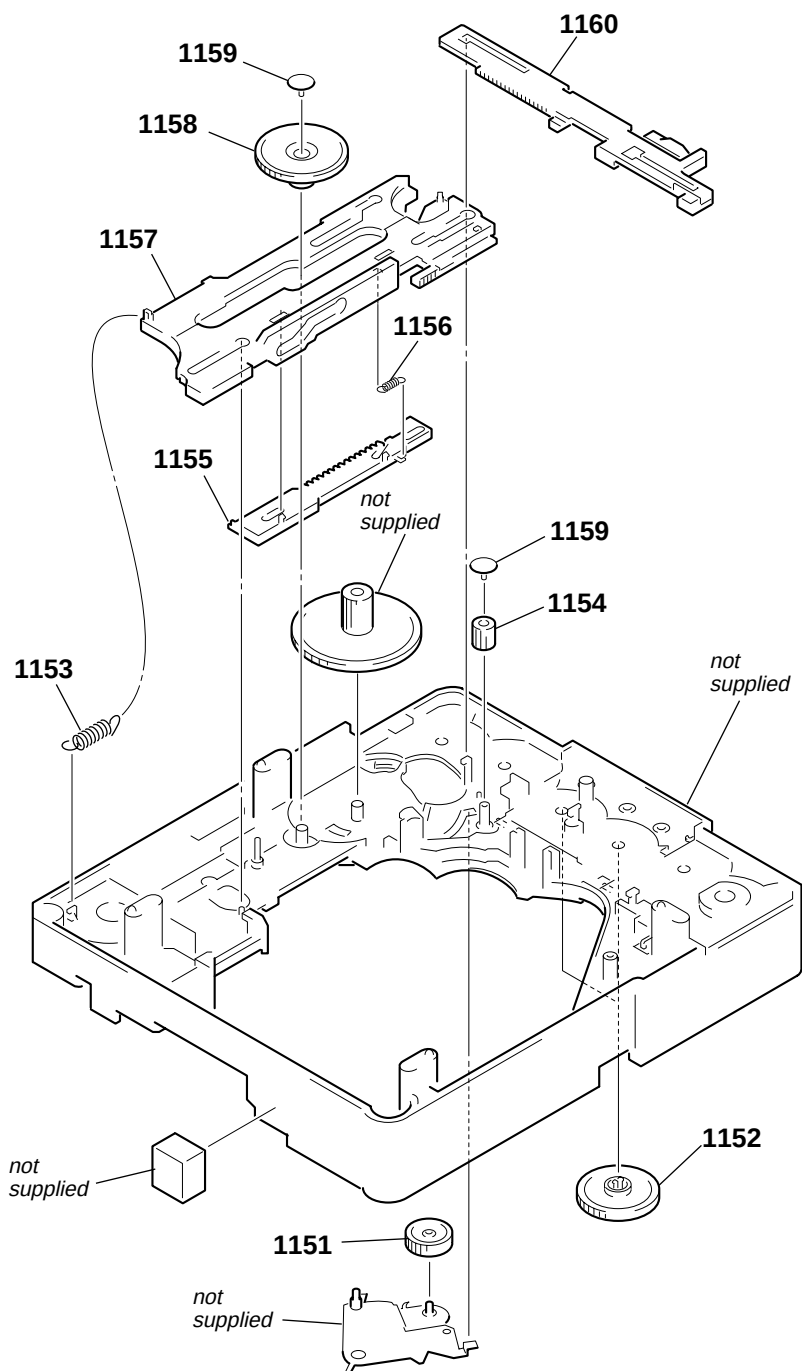
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1051	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING		1062	A-4751-507-A	MOTOR BOARD, COMPLETE	
1052	2-515-538-01	SPRING (HOLDER DOWN B), COIL		1063	4-253-344-01	SCREW (2)	
1053	4-245-653-01	BELT (MOT)		1064	4-252-904-01	PARASOL	
1054	4-245-662-02	PULLEY (GEAR)		1065	4-252-908-01	ROLLER, RUBBER	
1055	4-245-646-01	GEAR (IDL-F)					
1056	4-245-644-01	GEAR (IDL-D)		1066	4-252-903-01	SPRING (LOWER), TENSION	
1057	4-252-895-01	SPR-T (LOCK)		1067	4-252-898-01	SPR-E (TAKO BACK)	
1058	4-246-203-01	LEVER (RELEASE)		1068	4-252-899-01	SPR-E (PLATE PUSH BACK)	
1059	4-245-630-01	LEVER (SW)		1069	A-1060-631-A	PLATE (PUSH) ASSY	
1060	3-087-053-01	+BVTP2.6 (3CR)		M701	X-4955-496-1	MOTOR (PULLEY) ASSY (LOD)	
1061	4-245-639-01	LEVER (CL UP2)		#2	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
				#3	7-685-648-79	SCREW +P 3X12 TYPE2 NON-SLIT	

8-11. CD MECHANISM DECK SECTION-8 (CDM82C)



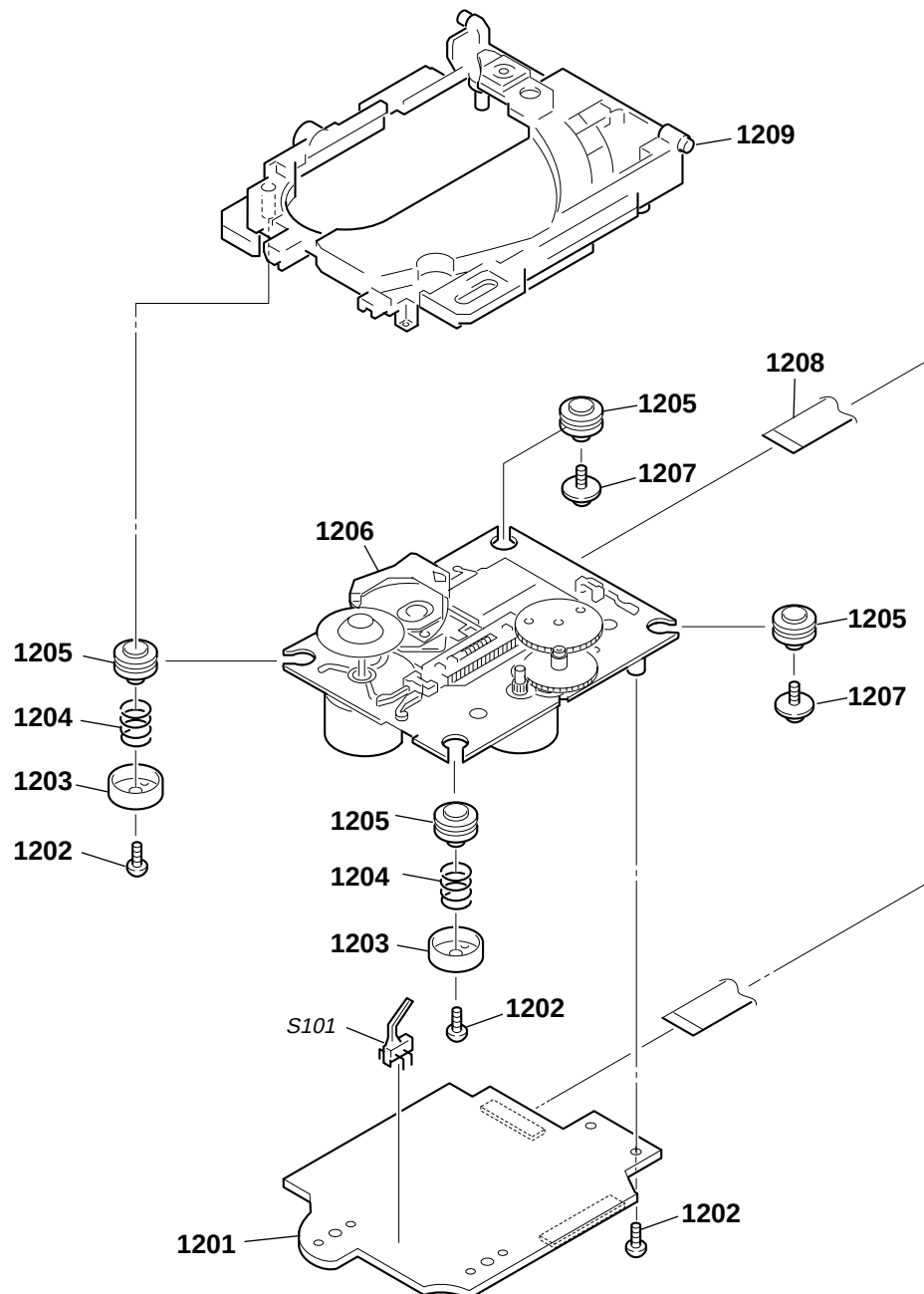
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1101	4-245-627-01	WASHER (6-2.7-0.4)		1112	1-452-925-21	MAGNET ASSY	
1102	4-245-637-11	ROLLER, RUBBER		1113	4-245-638-01	LEVER (CL UP1)	
1103	4-245-649-01	GEAR (IDL-I)		1114	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1104	4-245-657-11	LEVER (LOADING-R)		1115	4-245-636-01	SPR-T CL DOWN	
1105	4-245-647-01	GEAR (IDL-G)					
1106	4-245-648-01	GEAR (IDL-H)		1116	4-245-658-11	LEVER (DISC STOP)	
1107	4-245-655-01	CHASSIS (TOP)		1117	4-245-659-11	LEVER (DISC SENSOR)	
1108	4-245-631-11	SPT-T (LOADING-R)		1118	4-245-632-11	SPR-T (LOADING-L)	
1109	4-245-650-01	GEAR (IDL-J)		1119	X-2021-532-1	CLAMPER 213 ASSY	
1110	4-245-651-11	GEAR (IDL-L)		1120	4-245-656-11	LEVER (LOADING-L)	
1111	4-245-640-01	GEAR (CAP)		1121	4-253-747-01	STOPPER (IDL-I)	

8-12. CD MECHANISM DECK SECTION-9
(CDM82C)



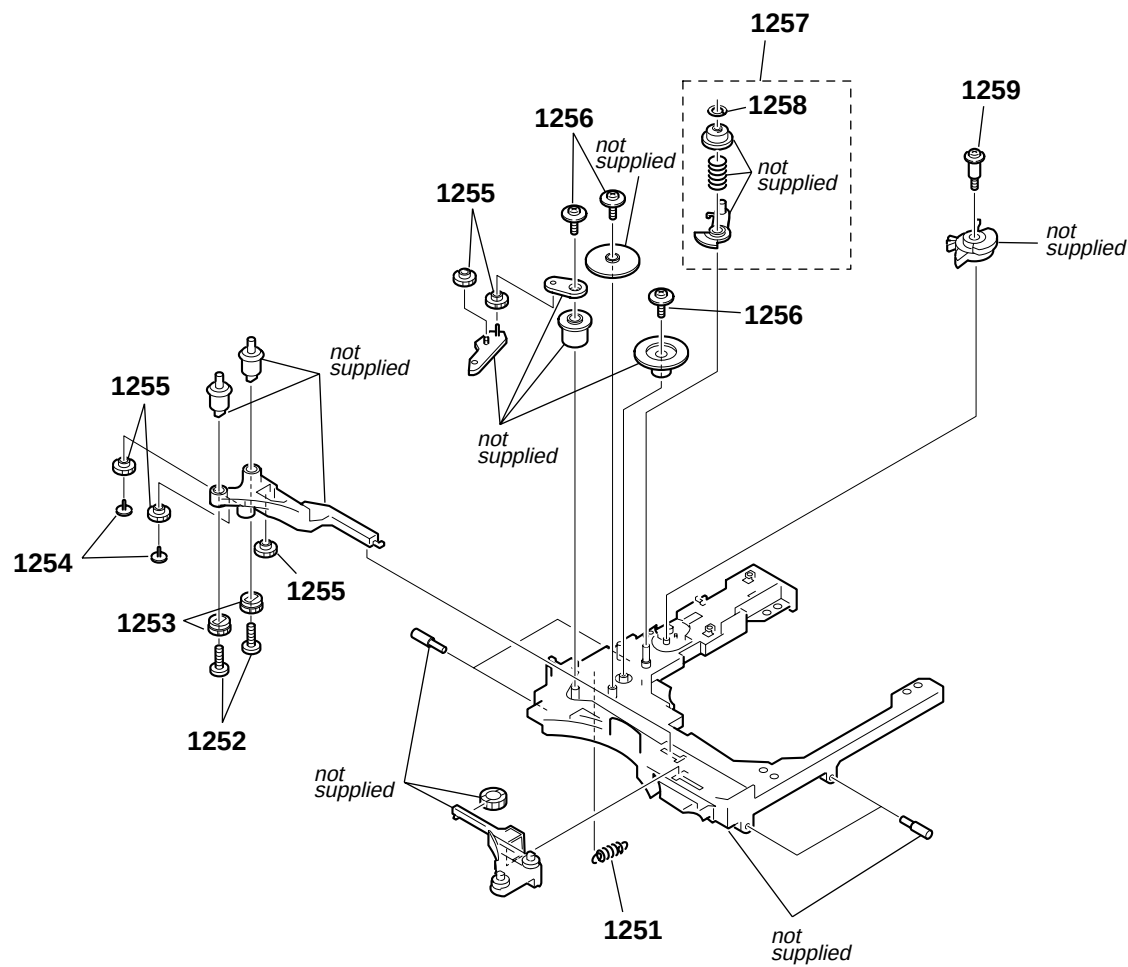
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1151	4-245-643-01	GEAR (IDL-C)		1156	2-515-534-01	SPRING (DIR BACK), TENSION COIL	
1152	4-245-644-01	GEAR (IDL-D)		1157	4-245-660-11	LEVER (DIR)	
1153	2-515-536-01	SPRING (DIR), TENSION COIL		1158	4-245-641-01	GEAR (IDL-A)	
1154	4-245-629-01	GEAR (BU LOCK)		1159	4-245-640-01	GEAR (CAP)	
1155	4-245-814-01	LEVER (DIR FIRST)		1160	4-245-628-01	LEVER (BU LOCK)	

8-13. BASE UNIT SECTION (BU-F1BD83A)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1201	A-1085-381-A	BD (A) BOARD, COMPLETE		△ 1206	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP	
1202	3-087-053-01	+BVTP2.6 (3CR)		1207	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1203	4-231-151-01	STOPPER (BU)		1208	1-827-992-11	WIRE (FLAT TYPE)(16 CORE)	
1204	4-227-045-31	SPRING (INSULATOR), COIL		1209	X-4956-146-1	HOLDER (BU215) ASSY	
1205	4-227-549-11	INSULATOR		S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	

8-14. CD MECHANISM DECK SECTION-10
(CDM82C)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1251	4-252-897-01	SPR-E (LOCK-OUT)		1256	4-992-069-01	SCREW (+PTPWH)(M2)(DIA. 7)	
1252	4-218-253-62	SCREW (M2.6), +BTTP		1257	A-1060-632-A	CLUTCH ASSY	
1253	4-252-907-02	GEAR (PARASOL 12)		1258	2-021-250-01	WASHER (5.5)	
1254	4-245-640-01	GEAR (CAP)		1259	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
1255	4-252-913-01	GEAR (GOOSENECK GENERAL SMALL)					

HCD-HPZ7/HPZ9

AMP ANALOG-IN

Ref. No.	Part No.	Description	Remark		
< TRANSISTOR >					
Q501	6-550-889-01	TRANSISTOR	2SC5938-T112-1B		
Q502	8-729-600-22	TRANSISTOR	2SA1235-F		
Q551	6-550-889-01	TRANSISTOR	2SC5938-T112-1B		
Q552	8-729-600-22	TRANSISTOR	2SA1235-F		
Q602	8-729-027-23	TRANSISTOR	DTA114EKA-T146		
Q603	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q604	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q605	8-729-600-22	TRANSISTOR	2SA1235-F		
Q606	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q607	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q608	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q609	8-729-120-28	TRANSISTOR	2SC1623-L5L6		
Q610	8-729-028-54	TRANSISTOR	KTC3205		
Q611	8-729-028-54	TRANSISTOR	KTC3205		
< RESISTOR >					
R501	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R502	1-216-845-11	METAL CHIP	100K	5%	1/10W
R503	1-216-821-11	METAL CHIP	1K	5%	1/10W
R504	1-216-821-11	METAL CHIP	1K	5%	1/10W
R506	1-216-864-11	SHORT CHIP	0		
R507	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R508	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ7
R508	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (HPZ9
R509	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ9
R510	1-216-833-11	METAL CHIP	10K	5%	1/10W
R511	1-216-841-11	METAL CHIP	47K	5%	1/10W
R512	1-216-821-11	METAL CHIP	1K	5%	1/10W
R513	1-216-833-11	METAL CHIP	10K	5%	1/10W
R514	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R515	1-217-156-00	METAL	0.22	10%	5W (HPZ9
R515	1-220-755-11	METAL	0.22	10%	2W (HPZ7
R516	1-216-845-11	METAL CHIP	100K	5%	1/10W
R517	1-260-076-11	CARBON	10	5%	1/2W
R518	1-216-833-11	METAL CHIP	10K	5%	1/10W
R519	1-216-841-11	METAL CHIP	47K	5%	1/10W
R551	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R552	1-216-845-11	METAL CHIP	100K	5%	1/10W
R553	1-216-821-11	METAL CHIP	1K	5%	1/10W
R554	1-216-821-11	METAL CHIP	1K	5%	1/10W
R556	1-216-864-11	SHORT CHIP	0		
R557	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R558	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ7
R558	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (HPZ9
R559	1-216-825-11	METAL CHIP	2.2K	5%	1/10W (HPZ9
R560	1-216-833-11	METAL CHIP	10K	5%	1/10W
R561	1-216-841-11	METAL CHIP	47K	5%	1/10W
R562	1-216-821-11	METAL CHIP	1K	5%	1/10W
R563	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description			Remark
R564	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R565	1-217-156-00	METAL	0.22	10%	5W (HPZ9
R565	1-220-755-11	METAL	0.22	10%	2W (HPZ7
R566	1-216-845-11	METAL CHIP	100K	5%	1/10W
R567	1-260-076-11	CARBON	10	5%	1/2W
R568	1-216-841-11	METAL CHIP	47K	5%	1/10W
R569	1-216-833-11	METAL CHIP	10K	5%	1/10W
R601	1-216-833-11	METAL CHIP	10K	5%	1/10W
R602	1-216-849-11	METAL CHIP	220K	5%	1/10W
R604	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R605	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R606	1-202-972-61	FUSIBLE	1	5%	1/4W
R607	1-202-972-61	FUSIBLE	1	5%	1/4W
R608	1-212-857-00	FUSIBLE	10	5%	1/4W
R609	1-216-833-11	METAL CHIP	10K	5%	1/10W
R610	1-216-837-11	METAL CHIP	22K	5%	1/10W
R611	1-216-833-11	METAL CHIP	10K	5%	1/10W
R612	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R613	1-216-841-11	METAL CHIP	47K	5%	1/10W
R614	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R617	1-216-833-11	METAL CHIP	10K	5%	1/10W
R618	1-216-833-11	METAL CHIP	10K	5%	1/10W
R619	1-216-833-11	METAL CHIP	10K	5%	1/10W
R620	1-216-845-11	METAL CHIP	100K	5%	1/10W
R621	1-216-821-11	METAL CHIP	1K	5%	1/10W
R622	1-216-853-11	METAL CHIP	470K	5%	1/10W
R623	1-216-833-11	METAL CHIP	10K	5%	1/10W
R624	1-216-845-11	METAL CHIP	100K	5%	1/10W
R625	1-216-837-11	METAL CHIP	22K	5%	1/10W
R626	1-216-809-11	METAL CHIP	100	5%	1/10W
R627	1-216-821-11	METAL CHIP	1K	5%	1/10W
R628	1-216-809-11	METAL CHIP	100	5%	1/10W
R630	1-216-841-11	METAL CHIP	47K	5%	1/10W
R631	1-216-841-11	METAL CHIP	47K	5%	1/10W
R632	1-216-833-11	METAL CHIP	10K	5%	1/10W

A-1107-055-A		ANALOG-IN BOARD, COMPLETE			

< CAPACITOR >					
C101	1-124-261-00	ELECT	10uF	20%	50V
C130	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C131	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C201	1-124-261-00	ELECT	10uF	20%	50V
C230	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C231	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
< DIODE >					
D812	6-500-848-01	DIODE	MC2840-T112-1		
< FERRITE BEAD >					
FB101	1-216-864-11	SHORT CHIP	0		
FB201	1-216-864-11	SHORT CHIP	0		
FB301	1-216-864-11	SHORT CHIP	0		

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
		< JACK >									
J301	1-815-629-11	JACK (ANALOG IN)				C223	1-165-128-11	CERAMIC CHIP	0.22uF		16V
		< RESISTOR >				C224	1-126-947-11	ELECT	47uF	20%	35V
R132	1-216-841-11	METAL CHIP	47K	5%	1/10W	C225	1-126-965-91	ELECT	22uF	20%	50V
R133	1-216-821-11	METAL CHIP	1K	5%	1/10W	C227	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R232	1-216-841-11	METAL CHIP	47K	5%	1/10W	C317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
R233	1-216-821-11	METAL CHIP	1K	5%	1/10W	C324	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
*****						C328	1-126-933-11	ELECT	100uF	20%	16V
A-1106-769-A	AU-TC BOARD, COMPLETE (AEP,UK,CET)					C360	1-130-479-00	MYLAR	0.0047uF	5%	50V
A-1107-064-A	AU-TC BOARD, COMPLETE (US,CND)					C361	1-130-479-00	MYLAR	0.0047uF	5%	50V
A-1107-860-A	AU-TC BOARD, COMPLETE					C362	1-130-487-00	MYLAR	0.022uF	5%	50V
						C363	1-130-483-00	MYLAR	0.01uF	5%	50V
A-1110-390-A	AU-TC BOARD, COMPLETE (KR)					C368	1-126-947-11	ELECT	47uF	20%	35V
						C371	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
						C374	1-130-483-00	MYLAR	0.01uF	5%	50V
						C375	1-126-965-91	ELECT	22uF	20%	50V
		< CAPACITOR >				C381	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	C382	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	C383	1-126-925-91	ELECT	470uF	20%	10V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C384	1-126-925-91	ELECT	470uF	20%	10V
C105	1-162-962-11	CERAMIC CHIP	470PF	10%	50V						
C106	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	C385	1-104-658-91	ELECT	100uF	20%	10V
								< CONNECTOR >			
C107	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	* CN301	1-564-510-11	PLUG, CONNECTOR 7P			
C109	1-126-964-11	ELECT	10uF	20%	50V			< DIODE >			
C110	1-126-964-11	ELECT	10uF	20%	50V	D318	8-719-063-79	DIODE 1N4002B			
C111	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	D331	8-719-988-61	DIODE 1SS355TE-17			
C112	1-162-960-11	CERAMIC CHIP	220PF	10%	50V			< EARTH TERMINAL >			
						EP301	1-537-770-21	TERMINAL BOARD, GROUND			
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V			< IC >			
C114	1-126-160-11	ELECT	1uF	20%	50V	IC302	6-708-013-01	IC BD3402AKS2			
C115	1-126-964-11	ELECT	10uF	20%	50V			< SHORT >			
C116	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V	JR301	1-216-864-11	SHORT CHIP	0		
C117	1-126-964-11	ELECT	10uF	20%	50V	JR302	1-216-864-11	SHORT CHIP	0		
								< TRANSISTOR >			
C120	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	Q101	8-729-920-31	TRANSISTOR	DTC343TK		
C121	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	Q103	8-729-920-31	TRANSISTOR	DTC343TK		
C122	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	Q104	8-729-920-31	TRANSISTOR	DTC343TK		
C123	1-165-128-11	CERAMIC CHIP	0.22uF		16V	Q201	8-729-920-31	TRANSISTOR	DTC343TK		
C124	1-126-947-11	ELECT	47uF	20%	35V	Q203	8-729-920-31	TRANSISTOR	DTC343TK		
						Q204	8-729-920-31	TRANSISTOR	DTC343TK		
C125	1-126-965-91	ELECT	22uF	20%	50V	Q306	8-729-600-22	TRANSISTOR	2SA1235-F		
C127	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	Q307	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	Q321	8-729-028-54	TRANSISTOR	KTC3205		
C203	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	Q322	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	Q323	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
								< RESISTOR >			
C205	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	R103	1-216-833-11	METAL CHIP	10K	5%	1/10W
C206	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	R104	1-216-833-11	METAL CHIP	10K	5%	1/10W
C207	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	R105	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
C209	1-126-964-11	ELECT	10uF	20%	50V						
C210	1-126-964-11	ELECT	10uF	20%	50V						
C211	1-162-960-11	CERAMIC CHIP	220PF	10%	50V						
C212	1-162-960-11	CERAMIC CHIP	220PF	10%	50V						
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V						
C214	1-126-160-11	ELECT	1uF	20%	50V						
C215	1-126-964-11	ELECT	10uF	20%	50V						
C216	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V						
C217	1-126-964-11	ELECT	10uF	20%	50V						
C220	1-162-962-11	CERAMIC CHIP	470PF	10%	50V						
C221	1-162-960-11	CERAMIC CHIP	220PF	10%	50V						
C222	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V						

HCD-HPZ7/HPZ9

Ver. 1.1

AU-TC BD

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W	R350	1-216-837-11	METAL CHIP	22K	5%	1/10W
R107	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R351	1-216-833-11	METAL CHIP	10K	5%	1/10W
R109	1-216-849-11	METAL CHIP	220K	5%	1/10W	R358	1-216-801-11	METAL CHIP	22	5%	1/10W
R110	1-216-853-11	METAL CHIP	470K	5%	1/10W	R359	1-216-837-11	METAL CHIP	22K	5%	1/10W
R111	1-216-813-11	METAL CHIP	220	5%	1/10W	R360	1-216-793-11	METAL CHIP	4.7	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W			< TRANSFORMER >			
						T101	1-419-080-21	COIL			
R113	1-216-845-11	METAL CHIP	100K	5%	1/10W	T201	1-419-080-21	COIL			
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	T301	1-433-372-31	TRANSFORMER, BIAS OSCILLATION			
R115	1-216-864-11	SHORT CHIP	0 (MX,TW,KR,SP,E51,AR,AUS)					*****			
R116	1-216-841-11	METAL CHIP	47K	5%	1/10W	A-1085-381-A	BD BOARD, COMPLETE	*****			
								< CAPACITOR >			
R117	1-216-821-11	METAL CHIP	1K	5%	1/10W	C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R119	1-216-821-11	METAL CHIP	1K	5%	1/10W	C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R126	1-216-837-11	METAL CHIP	22K	5%	1/10W	C103	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R127	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W	C105	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R131	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R132	1-216-837-11	METAL CHIP	22K	5%	1/10W	C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R134	1-216-809-11	METAL CHIP	100	5%	1/10W	C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R135	1-216-833-11	METAL CHIP	10K	5%	1/10W	C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V
R136	1-216-821-11	METAL CHIP	1K	5%	1/10W	C112	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W	C113	1-162-919-11	CERAMIC CHIP	22PF	5%	50V
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W	C131	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R205	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C132	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W	C133	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R207	1-216-841-11	METAL CHIP	47K	5%	1/10W	C201	1-128-995-21	ELECT CHIP	100uF	20%	10V
R208	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R209	1-216-849-11	METAL CHIP	220K	5%	1/10W	C203	1-128-995-21	ELECT CHIP	100uF	20%	10V
R210	1-216-853-11	METAL CHIP	470K	5%	1/10W	C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R211	1-216-813-11	METAL CHIP	220	5%	1/10W	C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R213	1-216-845-11	METAL CHIP	100K	5%	1/10W	C207	1-128-995-21	ELECT CHIP	100uF	20%	10V
R214	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R215	1-216-821-11	METAL CHIP	1K	5%	1/10W	C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V
						C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R215	1-216-864-11	SHORT CHIP	0 (MX,TW,KR,SP,E51,AR,AUS)								
R216	1-216-841-11	METAL CHIP	47K	5%	1/10W	C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R217	1-216-821-11	METAL CHIP	1K	5%	1/10W	C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W	C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R226	1-216-837-11	METAL CHIP	22K	5%	1/10W	C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R227	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R229	1-216-845-11	METAL CHIP	100K	5%	1/10W	C220	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R232	1-216-837-11	METAL CHIP	22K	5%	1/10W	C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R233	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C223	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R234	1-216-809-11	METAL CHIP	100	5%	1/10W	C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R235	1-216-833-11	METAL CHIP	10K	5%	1/10W	C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V
R236	1-216-821-11	METAL CHIP	1K	5%	1/10W	C227	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R326	1-216-857-11	METAL CHIP	1M	5%	1/10W	C228	1-128-590-11	ELECT CHIP	100uF	20%	6.3V
R328	1-216-809-11	METAL CHIP	100	5%	1/10W	C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R329	1-216-809-11	METAL CHIP	100	5%	1/10W	C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V
R345	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
R346	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
R347	1-216-821-11	METAL CHIP	1K	5%	1/10W						
R349	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						

BD

MOTOR

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	R112	1-216-809-11	METAL CHIP	100	5%	1/10W
C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R113	1-216-809-11	METAL CHIP	100	5%	1/10W
C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	R114	1-216-864-11	SHORT CHIP	0		
C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	R201	1-500-445-21	FERRITE, EMI (SMD)(2012)			
C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	R202	1-500-445-21	FERRITE, EMI (SMD)(2012)			
C259	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	R203	1-216-295-91	SHORT CHIP	0		
C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V	R207	1-216-295-91	SHORT CHIP	0		
C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	R249	1-216-841-11	METAL CHIP	47K	5%	1/10W
C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
C267	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
C268	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	R254	1-216-833-11	METAL CHIP	10K	5%	1/10W
C269	1-126-208-21	ELECT CHIP	47uF	20%	4V	R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
C270	1-126-208-21	ELECT CHIP	47uF	20%	4V	R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	R257	1-216-853-11	METAL CHIP	470K	5%	1/10W
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	R259	1-216-833-11	METAL CHIP	10K	5%	1/10W
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V	R260	1-216-864-11	SHORT CHIP	0		
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
C302	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V	R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V	R269	1-216-809-11	METAL CHIP	100	5%	1/10W
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	R270	1-216-817-11	METAL CHIP	470	5%	1/10W
C322	1-115-156-11	CERAMIC CHIP	1uF		10V	R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V	R272	1-500-445-21	FERRITE, EMI (SMD)(2012)			
C401	1-128-396-11	ELECT CHIP	470uF	20%	10V	R275	1-216-809-11	METAL CHIP	100	5%	1/10W
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R277	1-216-809-11	METAL CHIP	100	5%	1/10W
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R278	1-216-809-11	METAL CHIP	100	5%	1/10W
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V	R279	1-216-809-11	METAL CHIP	100	5%	1/10W
C451	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	R291	1-216-809-11	METAL CHIP	100	5%	1/10W
C452	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V	R292	1-216-809-11	METAL CHIP	100	5%	1/10W
< CONNECTOR >						R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W
CN102	1-770-706-11	CONNECTOR, FFC/FPC 23P				R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
CN301	1-770-425-11	CONNECTOR, FFC/FPC 16P				R323	1-216-864-11	SHORT CHIP	0		
< IC >						R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
IC201	8-753-239-32	IC CXD3014-201R				R325	1-216-864-11	SHORT CHIP	0		
IC202	6-700-394-01	IC BA25BC0FP-E2				R326	1-216-864-11	SHORT CHIP	0		
IC402	6-705-808-01	IC BA5947FM-E2				R401	1-216-295-91	SHORT CHIP	0		
< TRANSISTOR >						R421	1-216-864-11	SHORT CHIP	0		
Q321	6-551-120-01	TRANSISTOR	2SA2119K			R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
< RESISTOR >						R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R101	1-216-809-11	METAL CHIP	100	5%	1/10W	R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W	< VIBRATOR >					
R103	1-216-809-11	METAL CHIP	100	5%	1/10W	X202	1-767-408-21	VIBRATOR, CRYSTAL 16.9344MHz			
R104	1-216-809-11	METAL CHIP	100	5%	1/10W	*****					
R105	1-216-809-11	METAL CHIP	100	5%	1/10W	A-4751-507-A	MOTOR BOARD, COMPLETE				
R107	1-216-809-11	METAL CHIP	100	5%	1/10W	*****					
R108	1-216-809-11	METAL CHIP	100	5%	1/10W	< CAPACITOR >					
R109	1-216-809-11	METAL CHIP	100	5%	1/10W	C705	1-162-306-11	CERAMIC	0.01uF	20%	16V
R110	1-216-809-11	METAL CHIP	100	5%	1/10W	C711	1-126-964-11	ELECT	10uF	20%	50V
R111	1-216-809-11	METAL CHIP	100	5%	1/10W	< CONNECTOR >					
						CN701	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P			

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MOTOR HEADPHONE MAIN

Ref. No.	Part No.	Description	Remark			
< DIODE >						
D701	8-719-109-92	DIODE RD6.2ESB1				
< IC >						
IC701	8-759-598-69	IC BA6956AN				
< RESISTOR >						
R701	1-249-415-11	CARBON	680	5%	1/4W	
R702	1-247-807-31	CARBON	100	5%	1/4W	
< SWITCH >						
S701	1-762-951-21	SWITCH, PUSH				
S702	1-762-951-21	SWITCH, PUSH				

A-1107-054-A	HEADPHONE BOARD, COMPLETE					

< CAPACITOR >						
C136	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C236	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
< FERRITE BEAD >						
FB121	1-216-864-11	SHORT CHIP	0			
FB221	1-216-864-11	SHORT CHIP	0			
FB321	1-216-864-11	SHORT CHIP	0			
< JACK >						
J321	1-815-629-11	JACK (HEADPHONE)				

A-1107-057-A	MAIN BOARD, COMPLETE (HPZ9:US,CND)					
A-1110-029-A	MAIN BOARD, COMPLETE (HPZ9:SP,AUS)					
A-1110-117-A	MAIN BOARD, COMPLETE (E51,AR)					
A-1110-144-A	MAIN BOARD, COMPLETE (HPZ9:KR)					
A-1110-152-A	MAIN BOARD, COMPLETE (HPZ7:CND)					
A-1110-163-A	MAIN BOARD, COMPLETE (MX)					
A-1110-202-A	MAIN BOARD, COMPLETE (AEP,UK,CET)					
A-1110-251-A	MAIN BOARD, COMPLETE (HPZ7:TW,SP)					
A-1110-276-A	MAIN BOARD, COMPLETE (HPZ7:KR)					

7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					
< CAPACITOR >						
C102	1-124-261-00	ELECT	10uF	20%	50V	
C108	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C118	1-124-261-00	ELECT	10uF	20%	50V	
C119	1-124-261-00	ELECT	10uF	20%	50V	
C128	1-124-261-00	ELECT	10uF	20%	50V	
C131	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	
C133	1-130-495-00	MYLAR	0.1uF	5%	50V	
C135	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C136	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C137	1-126-965-91	ELECT	22uF	20%	50V	
C138	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C202	1-124-261-00	ELECT	10uF	20%	50V	
C208	1-162-974-11	CERAMIC CHIP	0.01uF		50V	

Ref. No.	Part No.	Description	Remark			
C218	1-124-261-00	ELECT	10uF	20%	50V	
C219	1-124-261-00	ELECT	10uF	20%	50V	
C228	1-124-261-00	ELECT	10uF	20%	50V	
C231	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	
C233	1-130-495-00	MYLAR	0.1uF	5%	50V	
C235	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C236	1-162-974-11	CERAMIC CHIP	0.01uF		50V	
C237	1-126-965-91	ELECT	22uF	20%	50V	
C238	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	
C300	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C301	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C302	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
C303	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C304	1-126-916-11	ELECT	1000uF	20%	6.3V	
C305	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C306	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C307	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C308	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C310	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C314	1-126-925-91	ELECT	470uF	20%	10V	
C315	1-126-925-91	ELECT	470uF	20%	10V	
C316	1-126-925-91	ELECT	470uF	20%	10V	
C319	1-126-926-11	ELECT	1000uF	20%	10V	
C321	1-126-925-91	ELECT	470uF	20%	10V	
C322	1-126-964-11	ELECT	10uF	20%	50V	
C323	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C325	1-126-925-91	ELECT	470uF	20%	10V	
C327	1-126-964-11	ELECT	10uF	20%	50V	
C329	1-126-963-11	ELECT	4.7uF	20%	50V	
C330	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C333	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
C334	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
C335	1-126-176-11	ELECT	220uF	20%	10V	
C338	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C339	1-126-927-11	ELECT	2200uF	20%	10V	
C340	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C354	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C355	1-126-176-11	ELECT	220uF	20%	10V	
C356	1-104-658-91	ELECT	100uF	20%	10V	
C357	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C386	1-126-933-11	ELECT	100uF	20%	16V	
C389	1-126-964-11	ELECT	10uF	20%	50V	
C390	1-126-927-11	ELECT	2200uF	20%	10V	
C391	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C392	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C393	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C394	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C395	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C396	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
C397	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
< CONNECTOR >						
* CN302	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P				
* CN303	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P				
CN304	1-779-560-21	CONNECTOR, FFC (LIF (NON-ZIF)) 23P				
CN305	1-784-731-11	CONNECTOR, FFC 9P (EXCEPT AEP,UK,CET)				
CN305	1-568-854-11	CONNECTOR, FFC 11P (AEP, UK, CET)				

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
CN306	1-564-506-11	PLUG, CONNECTOR 3P				< COIL >	
CN307	1-784-784-11	CONNECTOR, FFC 23P		L102	1-422-009-13	COIL, AIR-CORE	
* CN308	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P		L202	1-422-009-13	COIL, AIR-CORE	
CN309	1-564-509-11	PLUG, CONNECTOR 6P				< TRANSISTOR >	
CN311	1-568-838-11	CONNECTOR, FFC 21P					
CN312	1-784-786-11	CONNECTOR, FFC 25P		Q102	6-550-889-01	TRANSISTOR	2SC5938-T112-1B
CN313	1-568-830-11	CONNECTOR, FFC 11P		Q202	6-550-889-01	TRANSISTOR	2SC5938-T112-1B
* CN314	1-764-334-11	PLUG, CONNECTOR 11P		Q301	8-729-027-43	TRANSISTOR	DTC114EKA-T146
		< DIODE >		Q302	8-729-040-76	TRANSISTOR	KTA1273-Y-AT
D301	8-719-988-61	DIODE 1SS355TE-17		Q308	8-729-037-13	TRANSISTOR	KTA1271Y
D302	8-719-000-08	DIODE MC2838		Q309	8-729-027-52	TRANSISTOR	DTC124EKA-T146
D303	8-719-000-08	DIODE MC2838		Q310	8-729-037-13	TRANSISTOR	KTA1271Y
D304	8-719-988-61	DIODE 1SS355TE-17		Q311	8-729-027-52	TRANSISTOR	DTC124EKA-T146
D305	8-719-988-61	DIODE 1SS355TE-17		Q312	8-729-040-76	TRANSISTOR	KTA1273-Y-AT
D306	8-719-000-07	DIODE MC2836		Q313	8-729-027-43	TRANSISTOR	DTC114EKA-T146
D308	6-500-848-01	DIODE MC2840-T112-1		Q314	8-729-120-28	TRANSISTOR	2SC1623-L5L6
D309	8-719-000-08	DIODE MC2838		Q315	8-729-040-76	TRANSISTOR	KTA1273-Y-AT
D311	8-719-063-79	DIODE 1N4002B		Q316	8-729-027-46	TRANSISTOR	DTC114YKA-T146
D312	8-719-063-79	DIODE 1N4002B		Q317	8-729-027-23	TRANSISTOR	DTA114EKA-T146
D313	8-719-000-08	DIODE MC2838		Q318	8-729-027-43	TRANSISTOR	DTC114EKA-T146
D314	8-719-988-61	DIODE 1SS355TE-17		Q319	8-729-040-76	TRANSISTOR	KTA1273-Y-AT
D315	6-500-848-01	DIODE MC2840-T112-1		Q320	8-729-027-43	TRANSISTOR	DTC114EKA-T146
D316	8-719-000-07	DIODE MC2836				< RESISTOR >	
D317	8-719-988-61	DIODE 1SS355TE-17		R101	1-215-890-11	METAL OXIDE	470 5% 2W (HPZ7/HPZ9:KR,SP,E51,AR,AUS)
D322	8-719-063-79	DIODE 1N4002B		R101	1-215-892-11	METAL OXIDE	1K 5% 2W (HPZ9:US,CND)
		< EARTH TERMINAL >		R102	1-260-103-11	CARBON	2.2K 5% 1/2W (HPZ9:US,CND)
EP201	1-537-770-21	TERMINAL BOARD, GROUND		R118	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
		< FERRITE BEAD >		R120	1-216-837-11	METAL CHIP	22K 5% 1/10W
FB301	1-500-445-21	FERRITE, EMI (SMD)(2012)		R121	1-260-300-11	CARBON	4.7 5% 1/2W
FB302	1-216-864-11	SHORT CHIP 0		R123	1-216-821-11	METAL CHIP	1K 5% 1/10W
FB303	1-216-864-11	SHORT CHIP 0		R124	1-216-845-11	METAL CHIP	100K 5% 1/10W
FB304	1-216-864-11	SHORT CHIP 0		R128	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
FB305	1-216-864-11	SHORT CHIP 0		R139	1-216-833-11	METAL CHIP	10K 5% 1/10W
FB306	1-216-864-11	SHORT CHIP 0		R201	1-215-890-11	METAL OXIDE	470 5% 2W (HPZ7/HPZ9:KR,SP,E51,AR,AUS)
FB307	1-500-445-21	FERRITE, EMI (SMD)(2012)		R201	1-215-892-11	METAL OXIDE	1K 5% 2W (HPZ9:US,CND)
FB308	1-500-445-21	FERRITE, EMI (SMD)(2012)		R202	1-260-103-11	CARBON	2.2K 5% 1/2W (HPZ9:US,CND)
		< IC >		R218	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
IC304	8-759-701-59	IC NJM78M09FA		R220	1-216-837-11	METAL CHIP	22K 5% 1/10W
IC305	8-759-071-48	IC TA7807S		R221	1-260-300-11	CARBON	4.7 5% 1/2W
IC306	6-805-161-01	IC M30624MGP-A39FPU0		R223	1-216-821-11	METAL CHIP	1K 5% 1/10W
IC307	6-703-546-01	IC TA7804LS		R224	1-216-845-11	METAL CHIP	100K 5% 1/10W
IC308	6-703-546-01	IC TA7804LS		R228	1-216-829-11	METAL CHIP	4.7K 5% 1/10W
IC309	6-701-680-01	IC PST3629NR		R239	1-216-833-11	METAL CHIP	10K 5% 1/10W
IC310	8-759-231-57	IC TA7810S		R301	1-216-845-11	METAL CHIP	100K 5% 1/10W
		< JACK >		R302	1-216-821-11	METAL CHIP	1K 5% 1/10W
J302	8-749-019-25	IC TOTX141 (CD DIGITAL OUT)		R303	1-216-833-11	METAL CHIP	10K 5% 1/10W
		< SHORT >		R304	1-216-837-11	METAL CHIP	22K 5% 1/10W
JR001	1-216-864-11	SHORT CHIP 0		R305	1-216-841-11	METAL CHIP	47K 5% 1/10W
JR002	1-216-864-11	SHORT CHIP 0		R306	1-216-833-11	METAL CHIP	10K 5% 1/10W
				R307	1-216-833-11	METAL CHIP	10K 5% 1/10W (EXCEPT AEP,UK,CET)

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Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R308	1-216-833-11	METAL CHIP	10K	5%	1/10W (EXCEPT AEP,UK,CET)	R385	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R386	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R387	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R311	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R312	1-216-821-11	METAL CHIP	1K	5%	1/10W	R388	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R313	1-216-813-11	METAL CHIP	220	5%	1/10W	R389	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R314	1-216-841-11	METAL CHIP	47K	5%	1/10W	R390	1-216-841-11	METAL CHIP	47K	5%	1/10W
R315	1-216-821-11	METAL CHIP	1K	5%	1/10W	R391	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R400	1-216-809-11	METAL CHIP	100	5%	1/10W
R316	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R317	1-216-833-11	METAL CHIP	10K	5%	1/10W	R401	1-216-809-11	METAL CHIP	100	5%	1/10W
R318	1-216-833-11	METAL CHIP	10K	5%	1/10W	R402	1-216-809-11	METAL CHIP	100	5%	1/10W
R319	1-216-837-11	METAL CHIP	22K	5%	1/10W	R403	1-216-809-11	METAL CHIP	100	5%	1/10W
R320	1-216-833-11	METAL CHIP	10K	5%	1/10W	R404	1-216-833-11	METAL CHIP	10K	5%	1/10W
						R405	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W						
R322	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R406	1-216-809-11	METAL CHIP	100	5%	1/10W
R324	1-216-833-11	METAL CHIP	10K	5%	1/10W	R407	1-216-809-11	METAL CHIP	100	5%	1/10W
R325	1-216-833-11	METAL CHIP	10K	5%	1/10W	R409	1-216-833-11	METAL CHIP	10K	5%	1/10W
R327	1-216-821-11	METAL CHIP	1K	5%	1/10W	R411	1-216-849-11	METAL CHIP	220K	5%	1/10W
						R412	1-216-821-11	METAL CHIP	1K	5%	1/10W
R330	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R331	1-216-841-11	METAL CHIP	47K	5%	1/10W	R413	1-216-864-11	SHORT CHIP	0		
R332	1-216-841-11	METAL CHIP	47K	5%	1/10W	R417	1-216-833-11	METAL CHIP	10K	5%	1/10W
R333	1-216-841-11	METAL CHIP	47K	5%	1/10W	R418	1-216-809-11	METAL CHIP	100	5%	1/10W
R334	1-216-841-11	METAL CHIP	47K	5%	1/10W	R419	1-216-809-11	METAL CHIP	100	5%	1/10W
						R420	1-216-841-11	METAL CHIP	47K	5%	1/10W
R335	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R336	1-216-841-11	METAL CHIP	47K	5%	1/10W	R421	1-216-809-11	METAL CHIP	100	5%	1/10W
R337	1-216-841-11	METAL CHIP	47K	5%	1/10W	R422	1-216-809-11	METAL CHIP	100	5%	1/10W
R338	1-216-841-11	METAL CHIP	47K	5%	1/10W	R423	1-216-809-11	METAL CHIP	100	5%	1/10W
R340	1-216-841-11	METAL CHIP	47K	5%	1/10W	R424	1-216-809-11	METAL CHIP	100	5%	1/10W
						R425	1-216-809-11	METAL CHIP	100	5%	1/10W
R341	1-216-864-11	SHORT CHIP	0								
R342	1-216-841-11	METAL CHIP	47K	5%	1/10W	R426	1-216-809-11	METAL CHIP	100	5%	1/10W
R343	1-216-841-11	METAL CHIP	47K	5%	1/10W	R427	1-216-809-11	METAL CHIP	100	5%	1/10W
R344	1-216-841-11	METAL CHIP	47K	5%	1/10W	R428	1-216-809-11	METAL CHIP	100	5%	1/10W
△ R348	1-212-857-00	FUSIBLE	10	5%	1/4W	R429	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
						R430	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R352	1-247-791-91	CARBON	22	5%	1/4W						
R353	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R431	1-216-809-11	METAL CHIP	100	5%	1/10W
R354	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R432	1-216-809-11	METAL CHIP	100	5%	1/10W
R355	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R433	1-216-809-11	METAL CHIP	100	5%	1/10W
R356	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R434	1-216-809-11	METAL CHIP	100	5%	1/10W
						R435	1-216-809-11	METAL CHIP	100	5%	1/10W
R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W						
R365	1-216-825-11	METAL CHIP	2.2K	5%	1/10W	R436	1-216-809-11	METAL CHIP	100	5%	1/10W
R366	1-216-864-11	SHORT CHIP	0 (TW,KR,SP,AUS)			R437	1-216-809-11	METAL CHIP	100	5%	1/10W
R366	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (US,CND,MX,E51,AR)	R438	1-216-809-11	METAL CHIP	100	5%	1/10W
						R439	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-817-11	METAL CHIP	470	5%	1/10W (MX,E51,AR)	R440	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-821-11	METAL CHIP	1K	5%	1/10W (US,CND)	R441	1-216-809-11	METAL CHIP	100	5%	1/10W
						R442	1-216-809-11	METAL CHIP	100	5%	1/10W
R367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP,UK,CET)	R443	1-216-809-11	METAL CHIP	100	5%	1/10W
						R444	1-216-809-11	METAL CHIP	100	5%	1/10W
R368	1-216-841-11	METAL CHIP	47K	5%	1/10W	R445	1-216-809-11	METAL CHIP	100	5%	1/10W
R369	1-216-833-11	METAL CHIP	10K	5%	1/10W						
R370	1-216-833-11	METAL CHIP	10K	5%	1/10W	R446	1-216-809-11	METAL CHIP	100	5%	1/10W
						R447	1-216-809-11	METAL CHIP	100	5%	1/10W
R371	1-216-833-11	METAL CHIP	10K	5%	1/10W	R448	1-216-809-11	METAL CHIP	100	5%	1/10W
R372	1-216-841-11	METAL CHIP	47K	5%	1/10W	R449	1-216-809-11	METAL CHIP	100	5%	1/10W
R373	1-216-841-11	METAL CHIP	47K	5%	1/10W	R450	1-216-809-11	METAL CHIP	100	5%	1/10W
R374	1-216-841-11	METAL CHIP	47K	5%	1/10W						
R375	1-216-821-11	METAL CHIP	1K	5%	1/10W	R451	1-216-809-11	METAL CHIP	100	5%	1/10W
						R452	1-216-809-11	METAL CHIP	100	5%	1/10W
R381	1-216-841-11	METAL CHIP	47K	5%	1/10W	R453	1-216-809-11	METAL CHIP	100	5%	1/10W
R382	1-216-821-11	METAL CHIP	1K	5%	1/10W	R454	1-216-809-11	METAL CHIP	100	5%	1/10W
						R455	1-216-809-11	METAL CHIP	100	5%	1/10W

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R456	1-216-809-11	METAL CHIP	100	5%	1/10W	C822	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R457	1-216-809-11	METAL CHIP	100	5%	1/10W	C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R458	1-216-809-11	METAL CHIP	100	5%	1/10W						
R459	1-216-809-11	METAL CHIP	100	5%	1/10W	C824	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R460	1-216-809-11	METAL CHIP	100	5%	1/10W	C825	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R461	1-216-809-11	METAL CHIP	100	5%	1/10W	C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R463	1-216-809-11	METAL CHIP	100	5%	1/10W	C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R465	1-216-809-11	METAL CHIP	100	5%	1/10W						
R466	1-216-809-11	METAL CHIP	100	5%	1/10W	C829	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R467	1-216-809-11	METAL CHIP	100	5%	1/10W	C830	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C831	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R468	1-216-809-11	METAL CHIP	100	5%	1/10W	C832	1-126-964-11	ELECT	10uF	20%	50V
R469	1-216-809-11	METAL CHIP	100	5%	1/10W	C833	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R470	1-216-809-11	METAL CHIP	100	5%	1/10W						
R471	1-216-809-11	METAL CHIP	100	5%	1/10W	C834	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
R472	1-216-809-11	METAL CHIP	100	5%	1/10W	C835	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
						C836	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V
R474	1-216-857-11	METAL CHIP	1M	5%	1/10W	C837	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
R475	1-216-809-11	METAL CHIP	100	5%	1/10W	C838	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
R476	1-216-809-11	METAL CHIP	100	5%	1/10W						
R477	1-216-809-11	METAL CHIP	100	5%	1/10W						
R478	1-216-809-11	METAL CHIP	100	5%	1/10W						
								< CONNECTOR >			
R479	1-216-809-11	METAL CHIP	100	5%	1/10W	CN802	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P			
R480	1-216-809-11	METAL CHIP	100	5%	1/10W						
R481	1-216-809-11	METAL CHIP	100	5%	1/10W						
R482	1-216-809-11	METAL CHIP	100	5%	1/10W						
R483	1-216-809-11	METAL CHIP	100	5%	1/10W						
								< DIODE >			
R484	1-216-809-11	METAL CHIP	100	5%	1/10W	D801	8-719-063-92	DIODE SLR325MC-M-T31-NP			
R485	1-216-809-11	METAL CHIP	100	5%	1/10W	D802	8-719-063-92	DIODE SLR325MC-M-T31-NP			
R486	1-216-809-11	METAL CHIP	100	5%	1/10W	D803	8-719-063-92	DIODE SLR325MC-M-T31-NP			
R488	1-216-809-11	METAL CHIP	100	5%	1/10W	D804	8-719-063-91	DIODE SLR325DC-P-T32			
R489	1-216-809-11	METAL CHIP	100	5%	1/10W	D805	8-719-063-91	DIODE SLR325DC-P-T32			
R490	1-216-809-11	METAL CHIP	100	5%	1/10W	D806	8-719-063-91	DIODE SLR325DC-P-T32			
R491	1-216-809-11	METAL CHIP	100	5%	1/10W	D807	8-719-063-91	DIODE SLR325DC-P-T32			
R492	1-216-809-11	METAL CHIP	100	5%	1/10W	D808	8-719-063-91	DIODE SLR325DC-P-T32			
R494	1-216-809-11	METAL CHIP	100	5%	1/10W	D809	8-719-063-91	DIODE SLR325DC-P-T32			
R495	1-216-809-11	METAL CHIP	100	5%	1/10W	D811	8-719-063-93	DIODE SLR325VC-N-T32			
R497	1-216-809-11	METAL CHIP	100	5%	1/10W	D814	8-719-063-79	DIODE 1N4002B			
								< FLUORESCENT INDICATOR >			
						FL701	1-519-808-11	INDICATOR TUBE, FLUORESCENT			
								< IC >			
RY301	1-755-372-11	RELAY				IC801	8-759-643-83	IC uPD16315GB-3BS			
						IC802	6-600-446-01	IC RPM7240-H18			
								< TRANSISTOR >			
TM301	1-536-708-81	TERMINAL BOARD, PUSH (4P)(SPEAKER)				Q800	8-729-600-22	TRANSISTOR 2SA1235-F			
						Q805	8-729-027-43	TRANSISTOR DTC114EKA-T146			
						Q806	8-729-027-43	TRANSISTOR DTC114EKA-T146			
						Q807	8-729-027-43	TRANSISTOR DTC114EKA-T146			
						Q808	8-729-027-43	TRANSISTOR DTC114EKA-T146			
						Q809	8-729-027-43	TRANSISTOR DTC114EKA-T146			
						Q811	8-729-027-43	TRANSISTOR DTC114EKA-T146			
								< RESISTOR >			
						R801	1-216-813-11	METAL CHIP	220	5%	1/10W
						R802	1-216-813-11	METAL CHIP	220	5%	1/10W
						R803	1-216-813-11	METAL CHIP	220	5%	1/10W
						R804	1-216-813-11	METAL CHIP	220	5%	1/10W
						R805	1-216-817-11	METAL CHIP	470	5%	1/10W
C805	1-124-261-00	ELECT	10uF	20%	50V						
C820	1-162-927-11	CERAMIC CHIP	100PF	5%	50V						
C821	1-162-927-11	CERAMIC CHIP	100PF	5%	50V						

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Ver. 1.1

PANEL (1)	PANEL (2)	POWER
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Ref. No.	Part No.	Description	Remark		
R806	1-216-809-11	METAL CHIP	100	5%	1/10W
R807	1-216-813-11	METAL CHIP	220	5%	1/10W
R808	1-216-813-11	METAL CHIP	220	5%	1/10W
R809	1-216-817-11	METAL CHIP	470	5%	1/10W
R810	1-216-821-11	METAL CHIP	1K	5%	1/10W
R811	1-216-821-11	METAL CHIP	1K	5%	1/10W
R812	1-216-821-11	METAL CHIP	1K	5%	1/10W
R813	1-216-821-11	METAL CHIP	1K	5%	1/10W
R814	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R815	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R817	1-216-813-11	METAL CHIP	220	5%	1/10W
R818	1-216-813-11	METAL CHIP	220	5%	1/10W
R819	1-216-813-11	METAL CHIP	220	5%	1/10W
R820	1-216-813-11	METAL CHIP	220	5%	1/10W
R821	1-216-817-11	METAL CHIP	470	5%	1/10W
R822	1-216-809-11	METAL CHIP	100	5%	1/10W
R823	1-216-813-11	METAL CHIP	220	5%	1/10W
R824	1-216-813-11	METAL CHIP	220	5%	1/10W
R825	1-216-817-11	METAL CHIP	470	5%	1/10W
R826	1-216-821-11	METAL CHIP	1K	5%	1/10W
R827	1-216-821-11	METAL CHIP	1K	5%	1/10W
R828	1-216-821-11	METAL CHIP	1K	5%	1/10W
R829	1-216-821-11	METAL CHIP	1K	5%	1/10W
R830	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R831	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R832	1-216-833-11	METAL CHIP	10K	5%	1/10W
R845	1-216-809-11	METAL CHIP	100	5%	1/10W
R846	1-216-809-11	METAL CHIP	100	5%	1/10W
R847	1-216-809-11	METAL CHIP	100	5%	1/10W
R848	1-216-809-11	METAL CHIP	100	5%	1/10W
R849	1-216-809-11	METAL CHIP	100	5%	1/10W
R850	1-216-809-11	METAL CHIP	100	5%	1/10W
R851	1-216-809-11	METAL CHIP	100	5%	1/10W
R852	1-216-809-11	METAL CHIP	100	5%	1/10W
R853	1-216-809-11	METAL CHIP	100	5%	1/10W
R854	1-216-833-11	METAL CHIP	10K	5%	1/10W
R855	1-216-817-11	METAL CHIP	470	5%	1/10W
R857	1-216-845-11	METAL CHIP	100K	5%	1/10W
R858	1-216-853-11	METAL CHIP	470K	5%	1/10W
R859	1-216-845-11	METAL CHIP	100K	5%	1/10W
R860	1-216-845-11	METAL CHIP	100K	5%	1/10W
R861	1-216-864-11	SHORT CHIP	0		
R862	1-216-809-11	METAL CHIP	100	5%	1/10W
R863	1-216-809-11	METAL CHIP	100	5%	1/10W
R864	1-216-809-11	METAL CHIP	100	5%	1/10W
R874	1-216-864-11	SHORT CHIP	0		
R875	1-216-864-11	SHORT CHIP	0		
R876	1-216-809-11	METAL CHIP	100	5%	1/10W
R877	1-216-821-11	METAL CHIP	1K	5%	1/10W
R878	1-216-821-11	METAL CHIP	1K	5%	1/10W
R879	1-216-864-11	SHORT CHIP	0		
R880	1-216-864-11	SHORT CHIP	0		
< SWITCH >					
S701	1-762-875-21	SWITCH, KEYBOARD (POWER)			
S702	1-762-875-21	SWITCH, KEYBOARD (EJECT)			
S703	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)			
S704	1-762-875-21	SWITCH, KEYBOARD (DISC 1)			

Ref. No.	Part No.	Description	Remark		
S705	1-762-875-21	SWITCH, KEYBOARD (DISC 2)			
S706	1-762-875-21	SWITCH, KEYBOARD (DISC 3)			
S707	1-762-875-21	SWITCH, KEYBOARD (DISC 4)			
S708	1-762-875-21	SWITCH, KEYBOARD (DISC 5)			
S711	1-762-875-21	SWITCH, KEYBOARD (DSGX)			
S712	1-762-875-21	SWITCH, KEYBOARD (TUNER)			
S713	1-762-875-21	SWITCH, KEYBOARD (CD)			
S714	1-762-875-21	SWITCH, KEYBOARD (TAPE)			
S715	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)			
S716	1-762-875-21	SWITCH, KEYBOARD (CANCEL)			
S717	1-762-875-21	SWITCH, KEYBOARD (-)			
S718	1-762-875-21	SWITCH, KEYBOARD (+)			
S719	1-762-875-21	SWITCH, KEYBOARD (TUNE -)			
S720	1-762-875-21	SWITCH, KEYBOARD (TUNE +)			
S803	1-479-195-11	ENCODER (VOLUME)			
S804	1-478-061-11	ENCODER, ROTARY (PUSH ENTER)			

A-1107-053-A		PANEL (2) BOARD, COMPLETE			

< RESISTOR >					
R833	1-216-813-11	METAL CHIP	220	5%	1/10W
R834	1-216-813-11	METAL CHIP	220	5%	1/10W
R835	1-216-813-11	METAL CHIP	220	5%	1/10W
R836	1-216-813-11	METAL CHIP	220	5%	1/10W
R837	1-216-817-11	METAL CHIP	470	5%	1/10W
R838	1-216-809-11	METAL CHIP	100	5%	1/10W
R839	1-216-813-11	METAL CHIP	220	5%	1/10W
R840	1-216-813-11	METAL CHIP	220	5%	1/10W
R841	1-216-817-11	METAL CHIP	470	5%	1/10W
< SWITCH >					
S721	1-762-875-21	SWITCH, KEYBOARD (PLAY MODE/TUNING MODE)			
S722	1-762-875-21	SWITCH, KEYBOARD (REPEAT/FM MODE)			
S723	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
S724	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
S725	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)			

A-1107-049-A		POWER BOARD, COMPLETE (HPZ9:US,CND)			
A-1110-025-A		POWER BOARD, COMPLETE (AUS)			
A-1110-112-A		POWER BOARD, COMPLETE (HPZ9:SP,E51)			
A-1110-128-A		POWER BOARD, COMPLETE (HPZ9:KR,AR)			
A-1110-149-A		POWER BOARD, COMPLETE (HPZ7:CND)			
A-1110-160-A		POWER BOARD, COMPLETE (MX,TW)			
A-1110-195-A		POWER BOARD, COMPLETE (AEP,UK,CET)			
A-1110-217-A		POWER BOARD, COMPLETE (HPZ7:SP)			
A-1110-386-A		POWER BOARD, COMPLETE (HPZ7:KR)			

< CAPACITOR >					
C901	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C902	1-126-964-11	ELECT	10uF	20%	50V
C903	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C904	1-126-964-11	ELECT	10uF	20%	50V
C907	1-136-165-00	FILM	0.1uF	5%	50V
C909	1-136-165-00	FILM	0.1uF	5%	50V
C910	1-126-943-11	ELECT	2200uF	20%	25V

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Ver. 1.2

RELAY	SW (A)	SW (B)	SW (D)	SW, DISC	THERMISTOR
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Ref. No.	Part No.	Description	Remark		
R853	1-249-425-11	CARBON	4.7K	5%	1/4W
R854	1-249-433-11	CARBON	22K	5%	1/4W
R855	1-249-425-11	CARBON	4.7K	5%	1/4W
R856	1-249-437-11	CARBON	47K	5%	1/4W

	A-4751-595-A	SW(A) BOARD, COMPLETE	*****		
		< SWITCH >			
S811	1-786-289-31	SWITCH, DETECTION (OPEN)			
S831	1-786-289-31	SWITCH, DETECTION (PUSH-CLOSE)	*****		
	A-4751-596-A	SW(B) BOARD, COMPLETE	*****		
		< SWITCH >			
S821	1-786-084-21	SWITCH, DETECTION (LOD POSITION/CLOSE)	*****		
	A-4751-598-A	SW(D) BOARD, COMPLETE	*****		
		< SWITCH >			
S851	1-786-382-21	SWITCH, PUSH (1 KEY)(12CM)	*****		
	A-1092-131-A	SW,DISC BOARD, COMPLETE	*****		
		< SWITCH >			
S861	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 1)			
S862	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 2)			
S863	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 3)			
S864	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 4)			
S865	1-771-495-21	SWITCH, PUSH (1 KEY)(DISC 5)	*****		
	A-1106-794-A	THERMISTOR BOARD, COMPLETE	*****		
		< THERMISTOR (POSITIVE) >			
THP822	1-807-796-11	THERMISTOR	*****		
		MISCELLANEOUS	*****		
10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)			
64	1-866-037-11	PWB, HP HOLDER			
65	1-866-038-11	PWB, LINE IN HOLDER			
106	1-787-319-11	FAN, DC			
△ 107	1-769-079-41	CORD, POWER (KR)			

Ref. No.	Part No.	Description	Remark
△ 107	1-769-744-81	CORD, POWER (UK)	
△ 107	1-775-790-71	CORD, POWER (AUS)	
△ 107	1-827-226-31	CORD, POWER (MX)	
△ 107	1-827-597-31	CORD, POWER (TW)	
△ 107	1-829-387-11	CORD, POWER (AR)	
△ 107	1-830-188-11	CORD, POWER (AEP,CET,SP,E51)	
△ 107	1-830-190-11	CORD, POWER (US,CND)	
109	1-693-684-11	TUNER (FM/AM)(US,CND)	
109	1-693-685-11	TUNER (FM/AM)(MX,TW,SP,E51,AR,AUS)	
109	1-693-686-11	TUNER (FM/AM)(AEP,UK,CET)	
109	1-693-687-11	TUNER (FM/AM)(KR)	
110	1-828-963-11	WIRE (FLAT TYPE)(11 CORE)	
114	1-829-017-11	WIRE (FLAT TYPE)(21 CORE)	
1112	1-452-925-21	MAGNET ASSY	
△ 1206	8-820-244-01	OPTICAL PICK-UP KSM-215DCP/C2NP	
1208	1-827-992-11	WIRE (FLAT TYPE)(16 CORE)	
△ F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)
△ F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)
△ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(AEP,UK,MX,TW,CET,HPZ7:KR,SP)
△ F901	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)
△ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5)(T4A/250V)	(HPZ7:AEP,UK,MX,TW,KR,CET,SP)
△ F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5)(4A/125V)	(HPZ7:CND)
△ F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(HPZ9:US,CND)
△ F902	1-533-472-12	FUSE, GLASS TUBE (DIA. 5)(5A/250V)	(HPZ9:KR,SP,E51,AR,AUS)
△ F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5)(3.15A/125V)	(HPZ7:CND)
△ F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5)(6.3A/125V)	(US,CND)
△ F903	1-533-468-12	FUSE, GLASS TUBE (DIA. 5)(2A/250V)	(HPZ7:MX,TW,SP)
△ F903	1-533-469-12	FUSE, GLASS TUBE (DIA. 5)(2.5A/250V)	(HPZ9:SP,E51)
M701	X-4955-496-1	MOTOR (PULLEY) ASSY (LOD)	
M871	A-1060-630-A	MOTOR ASSY (LOD)	
M881	A-1060-630-A	MOTOR ASSY (ELV)	
S101	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S881	1-478-706-11	ENCODER, ROTARY	
△ T901	1-443-681-11	TRANSFORMER, POWER (HPZ7:MX,TW,KR,SP)	
△ T901	1-443-682-11	TRANSFORMER, POWER (HPZ7:CND)	
△ T901	1-443-683-11	TRANSFORMER, POWER (AEP,UK,CET)	
△ T901	1-443-685-11	TRANSFORMER, POWER	(HPZ9:KR,SP,E51,AR,AUS)
△ T901	1-443-686-11	TRANSFORMER, POWER (HPZ9:US,CND)	

HCD-HPZ7/HPZ9

SONY

SERVICE MANUAL

Ver. 1.3 2005.08

US Model

HCD-HPZ9

Canadian Model

HCD-HPZ7/HPZ9

AEP Model

UK Model

HCD-HPZ7

E Model

HCD-HPZ7/HPZ9

Australian Model

HCD-HPZ9

SUPPLEMENT-1

Subject: Addition of new type models

Note 1: New type models
HPZ7 : CND, AEP, UK, CET
HPZ9 : US, CND

Note 2: The new type model can be identified from the old type model by the following fig.

- Abbreviation
CND : Canadian model
CET : East European and Russian model

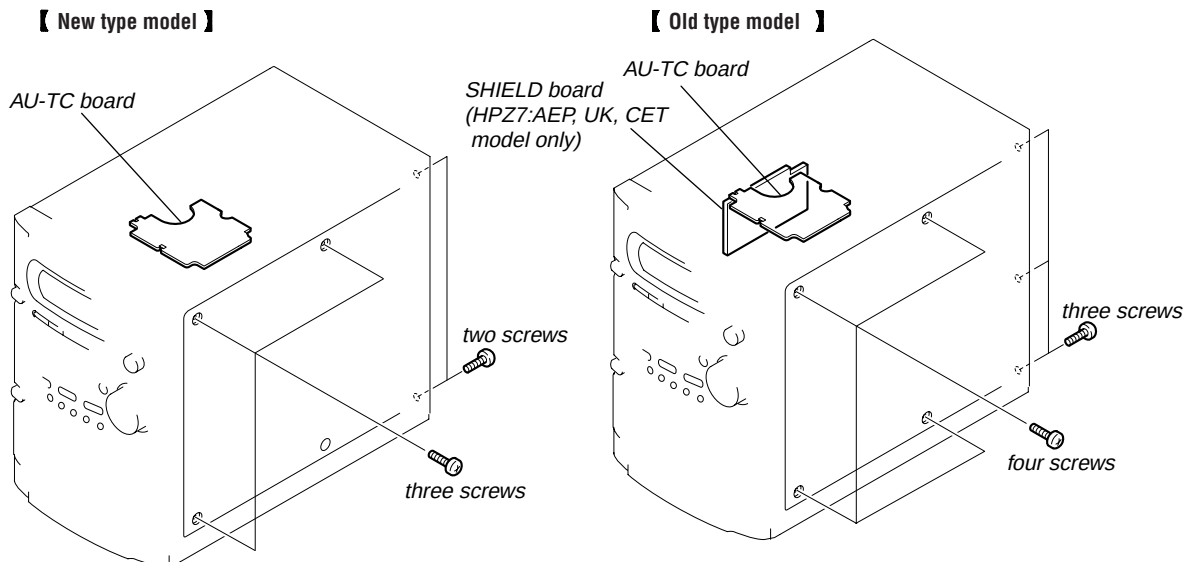


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7. EXPLODED VIEWS

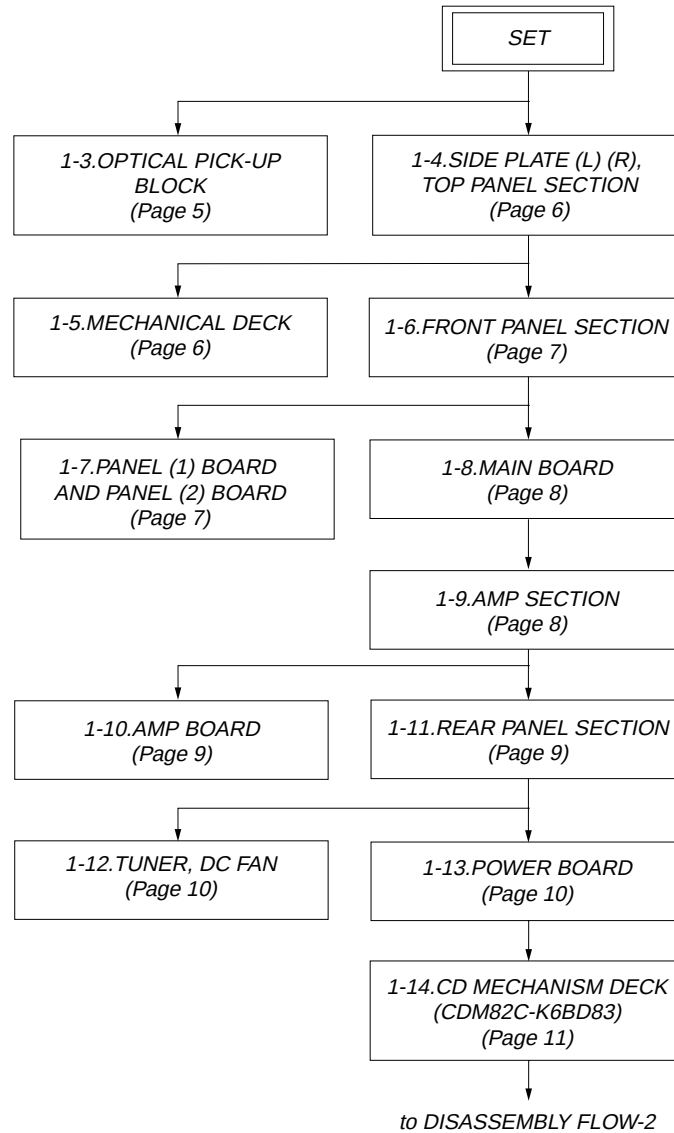
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SECTION 1 DISASSEMBLY

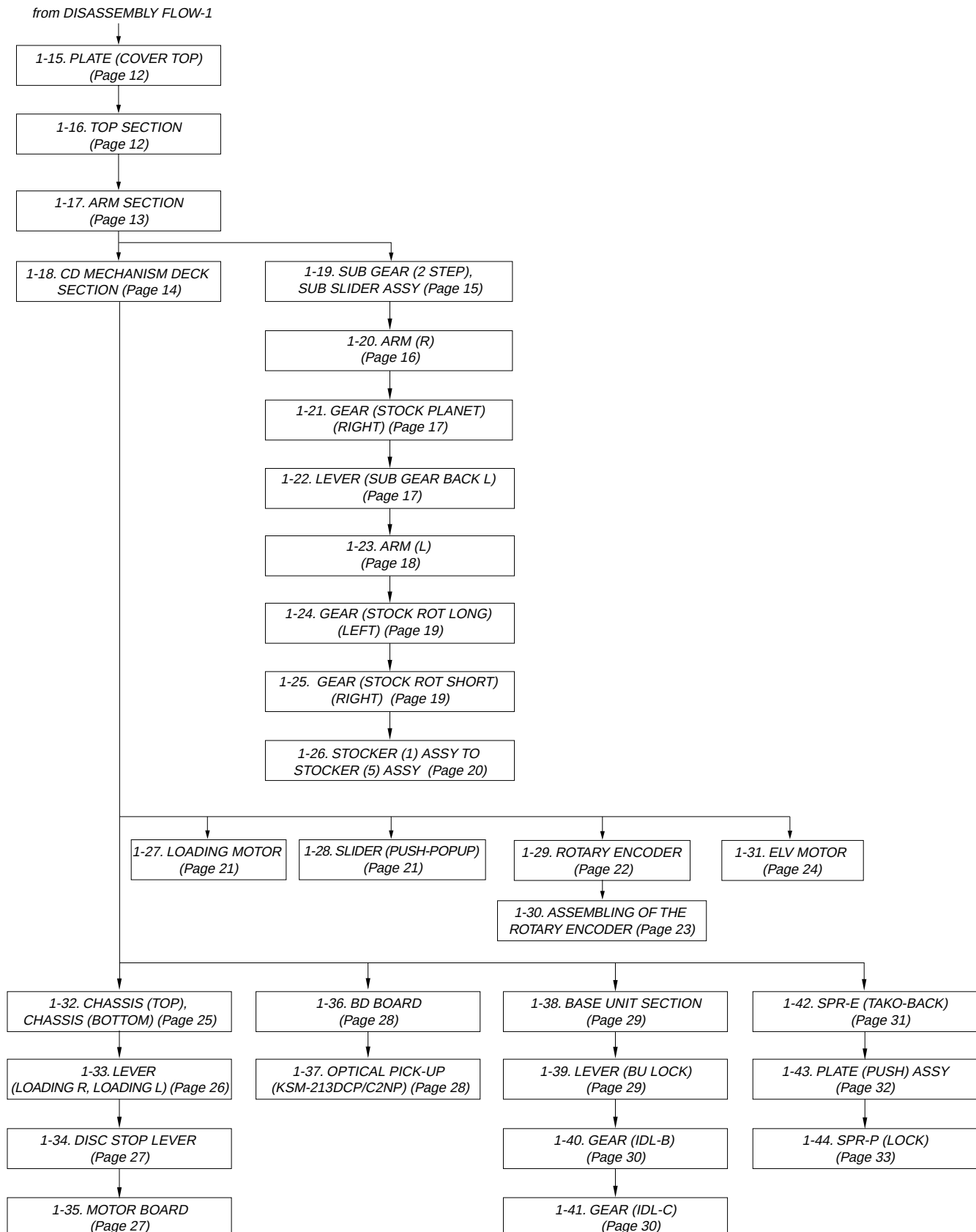
1-1. DISASSEMBLY FLOW-1

- This set can be disassembled in the order shown below.



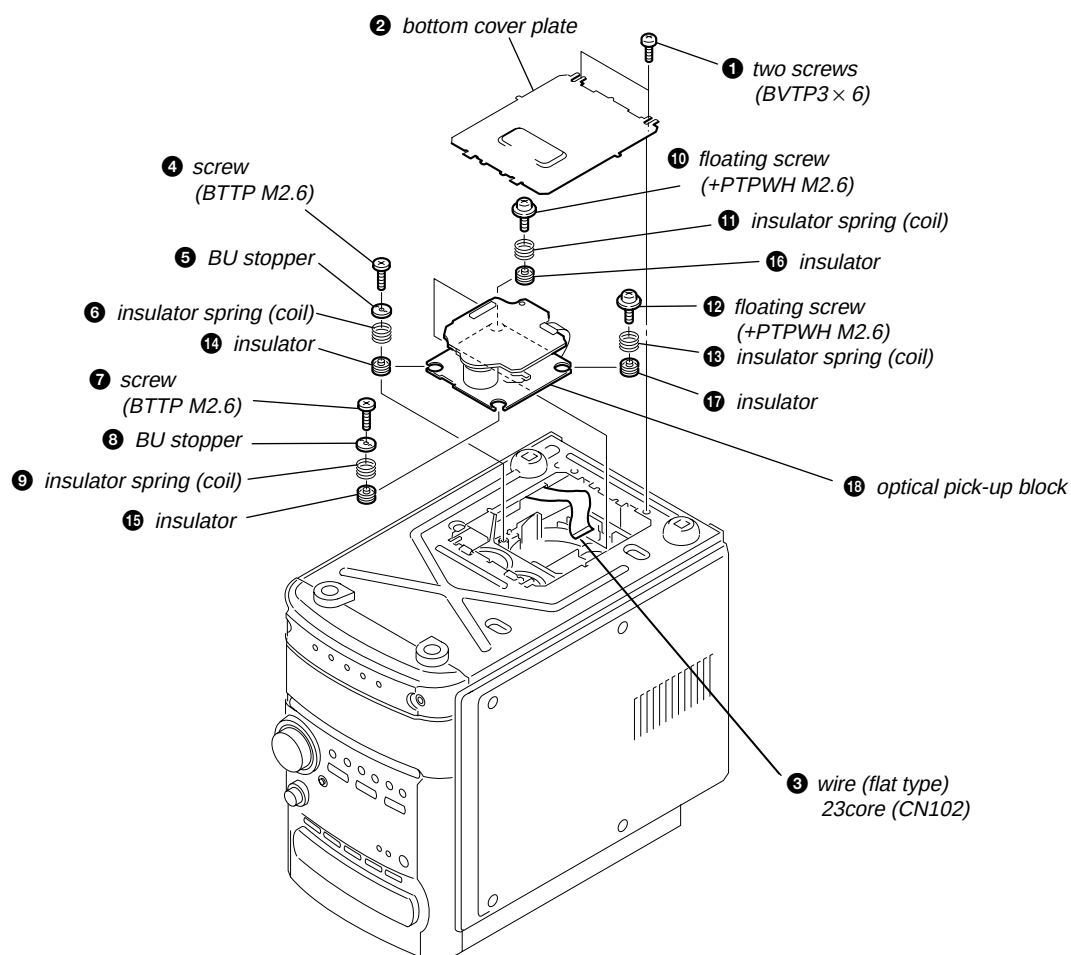
1-2. DISASSEMBLY FLOW-2

- This set can be disassembled in the order shown below.

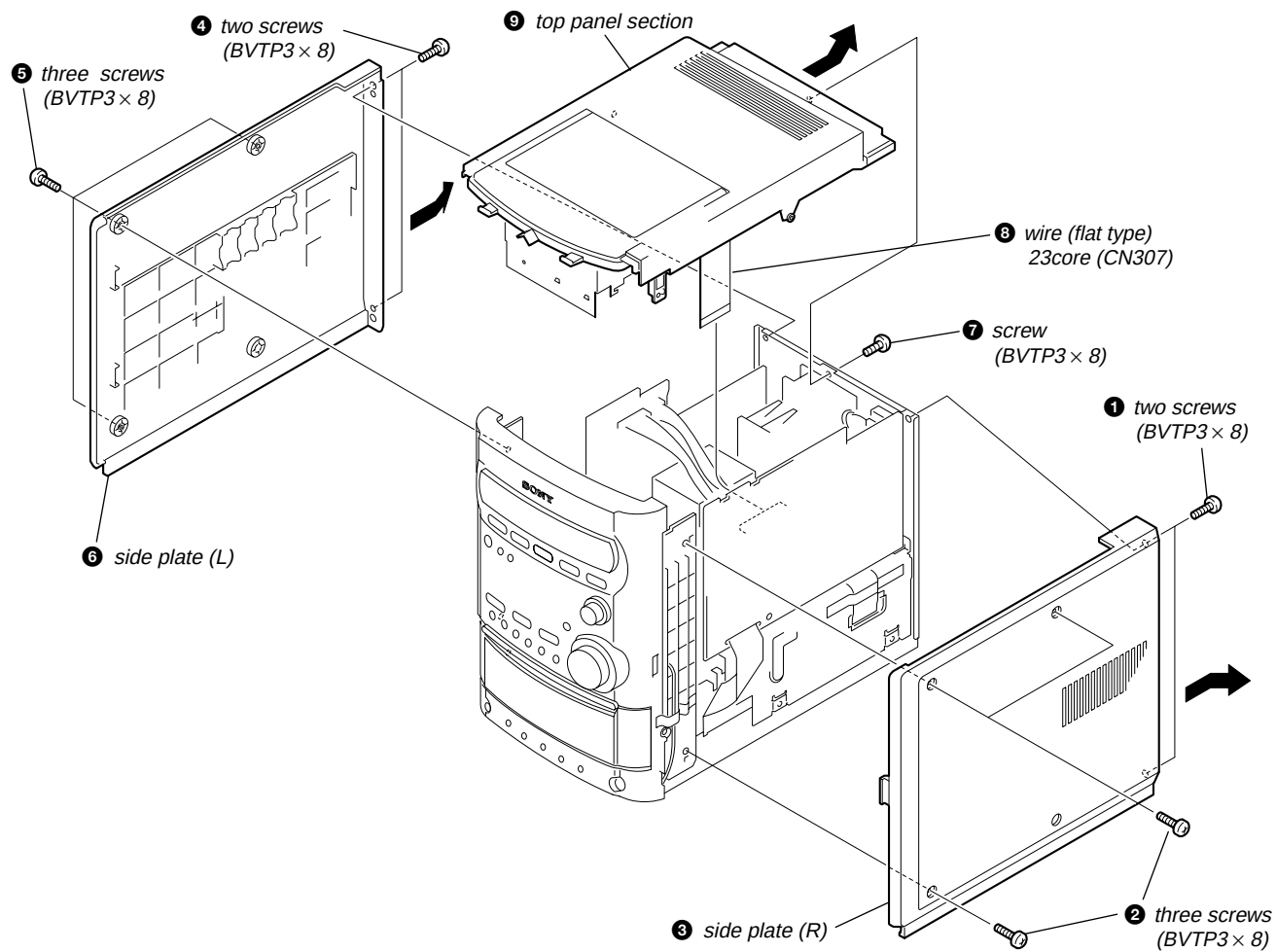


Note: Follow the disassembly procedure in the numerical order given.

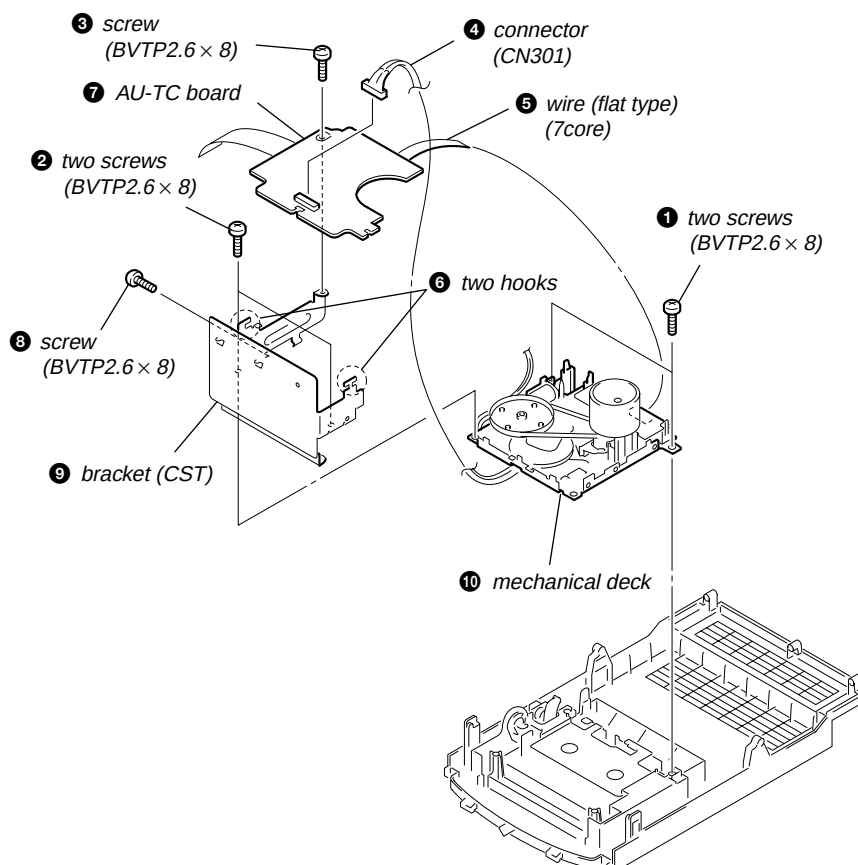
1-3. OPTICAL PICK-UP BLOCK



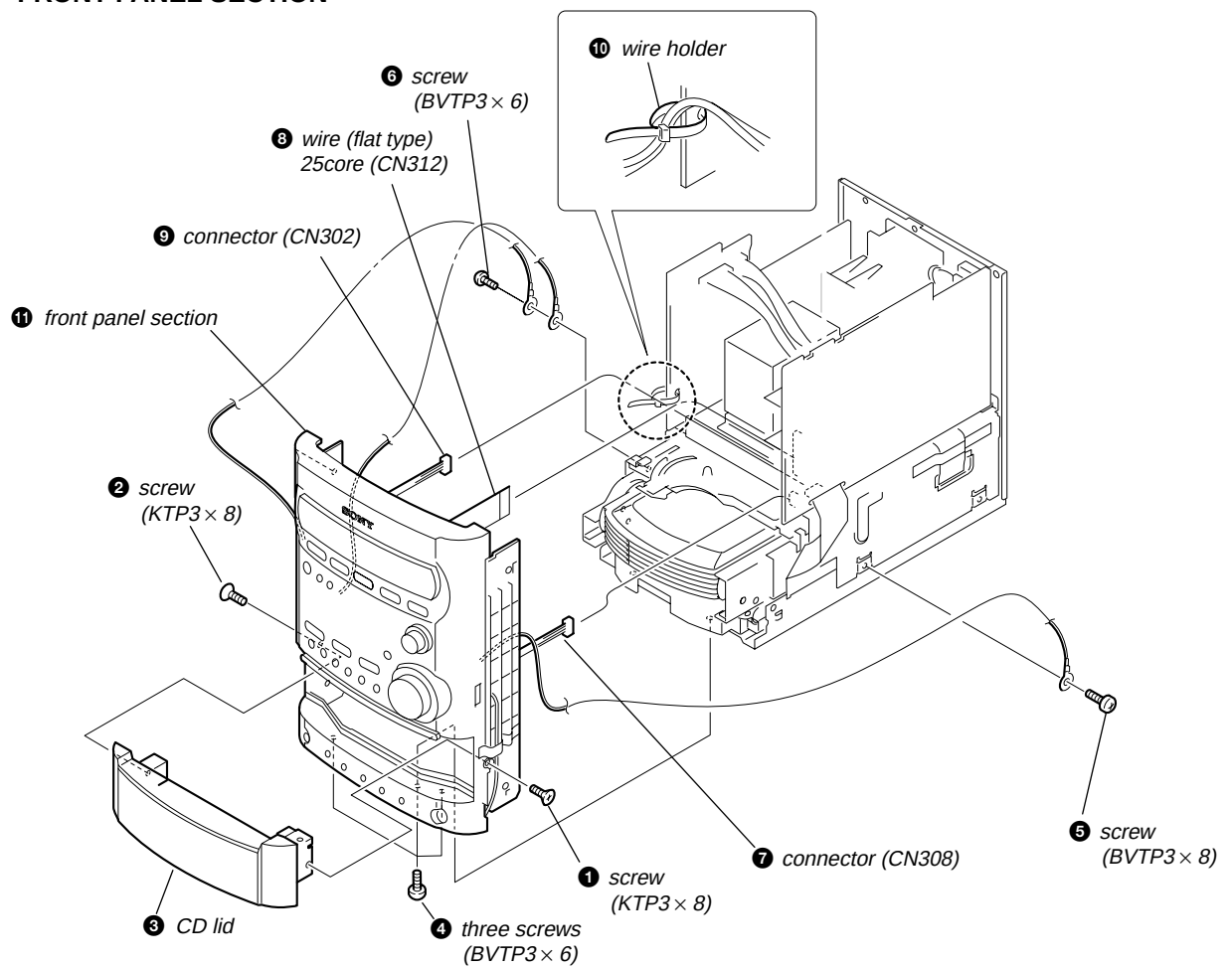
1-4. SIDE PLATE (L) (R), TOP PANEL SECTION



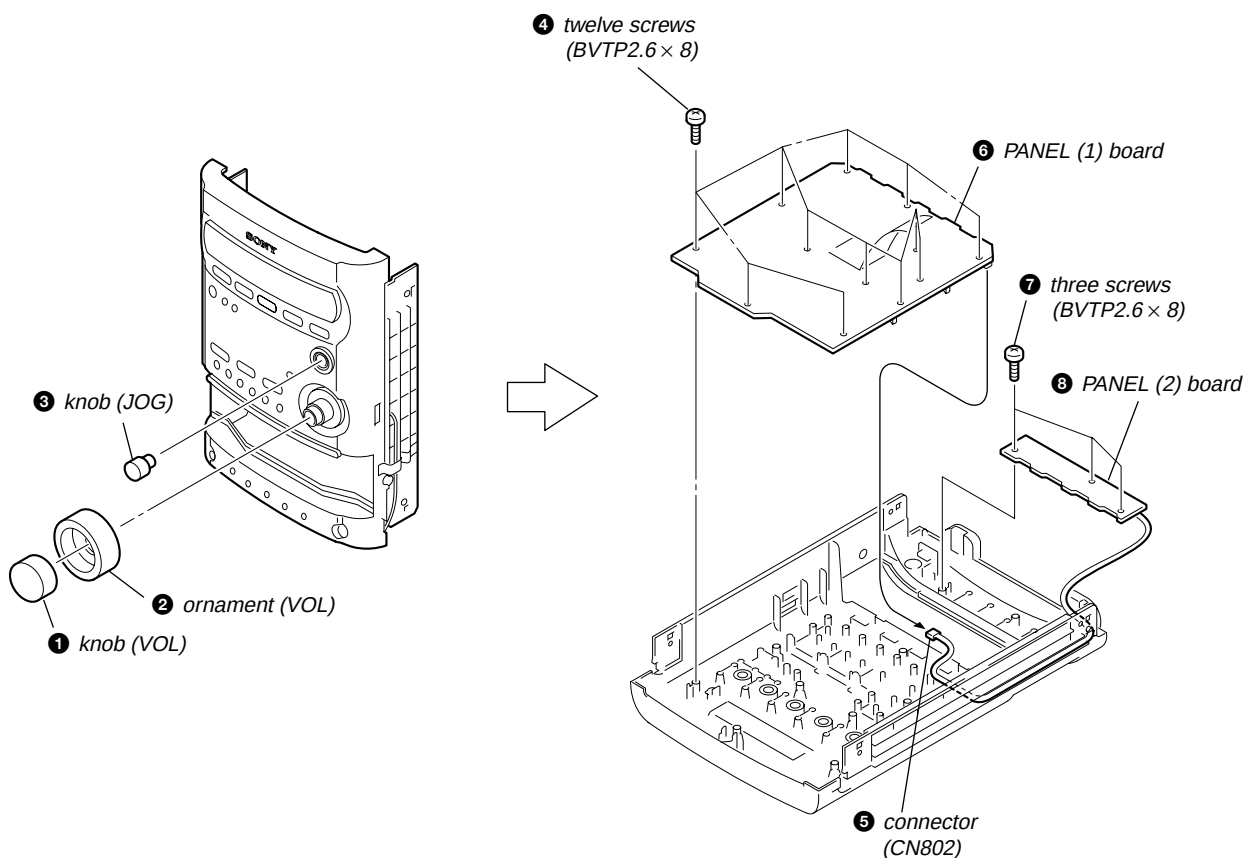
1-5. MECHANICAL DECK



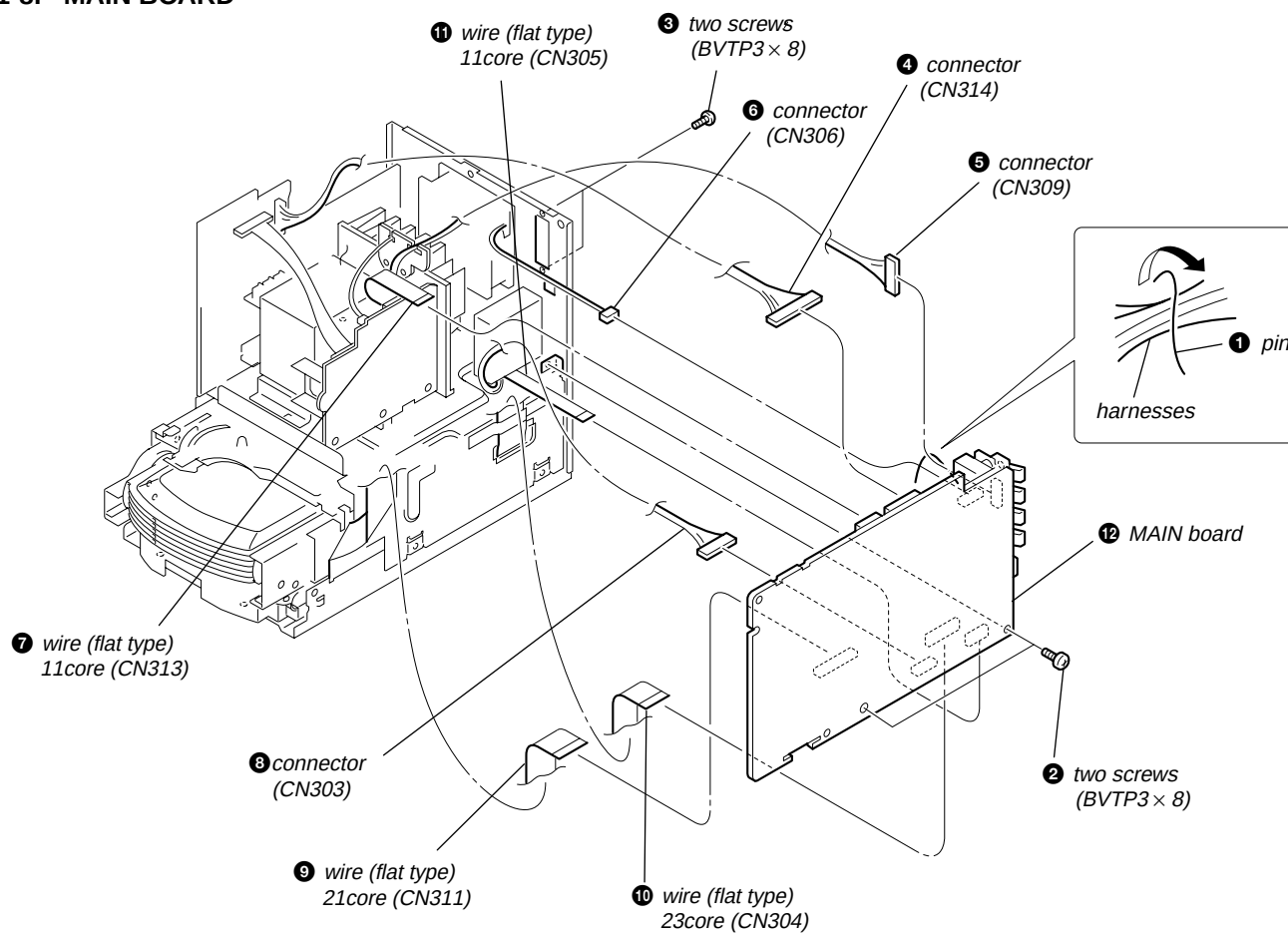
1-6. FRONT PANEL SECTION



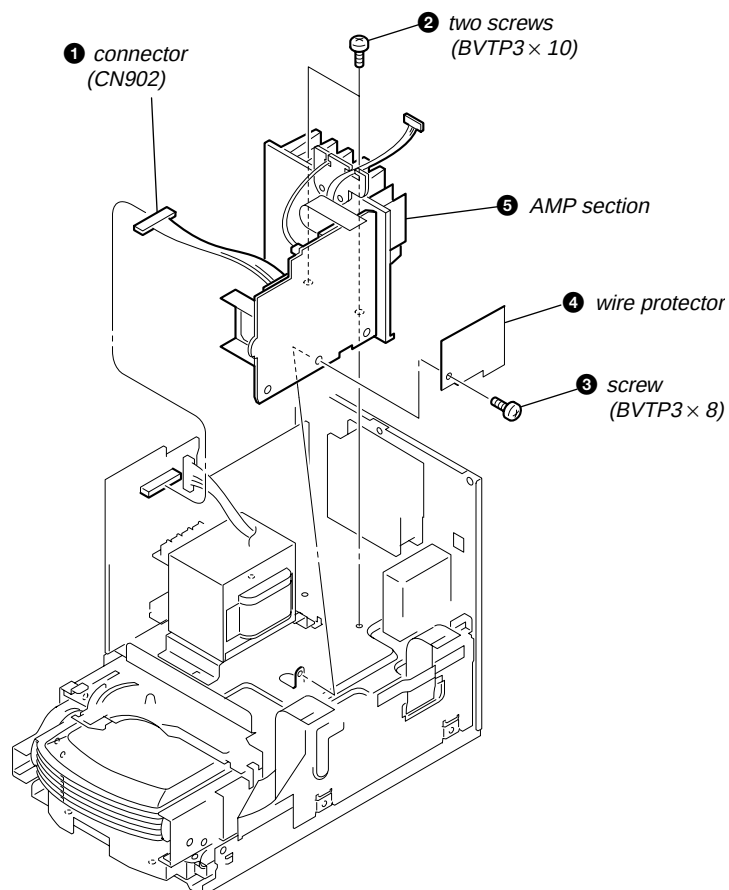
1-7. PANEL (1) BOARD AND PANEL (2) BOARD



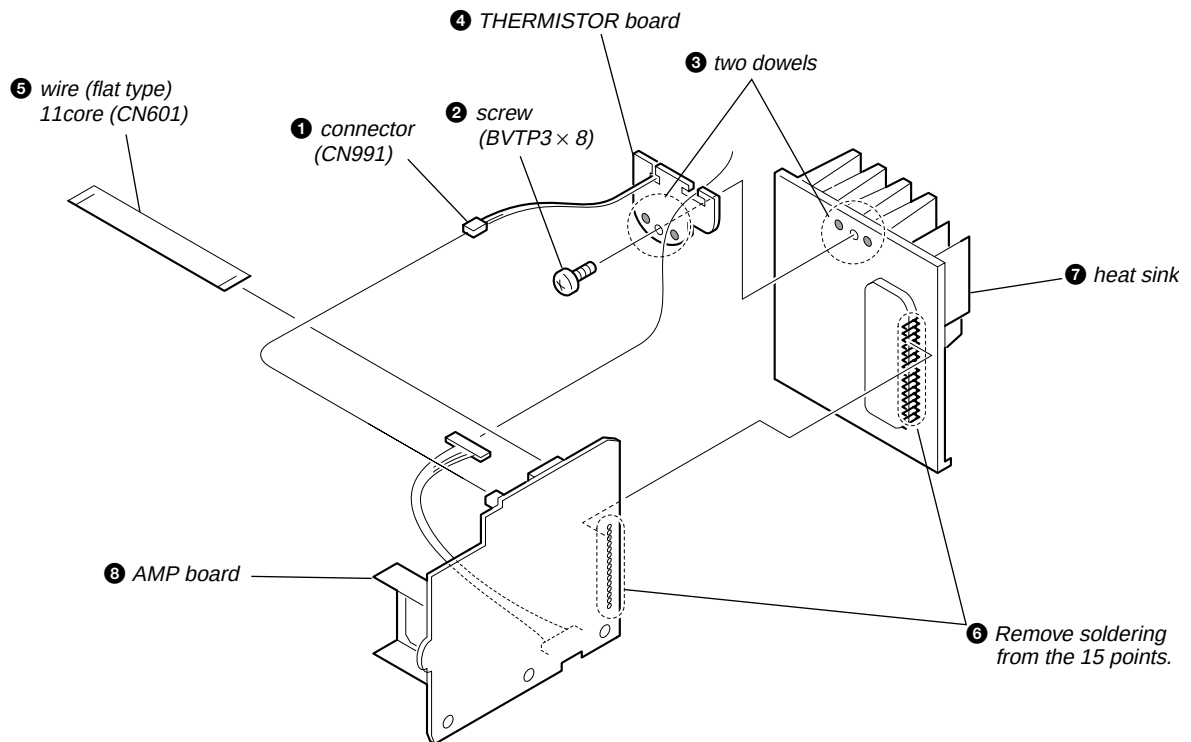
1-8. MAIN BOARD



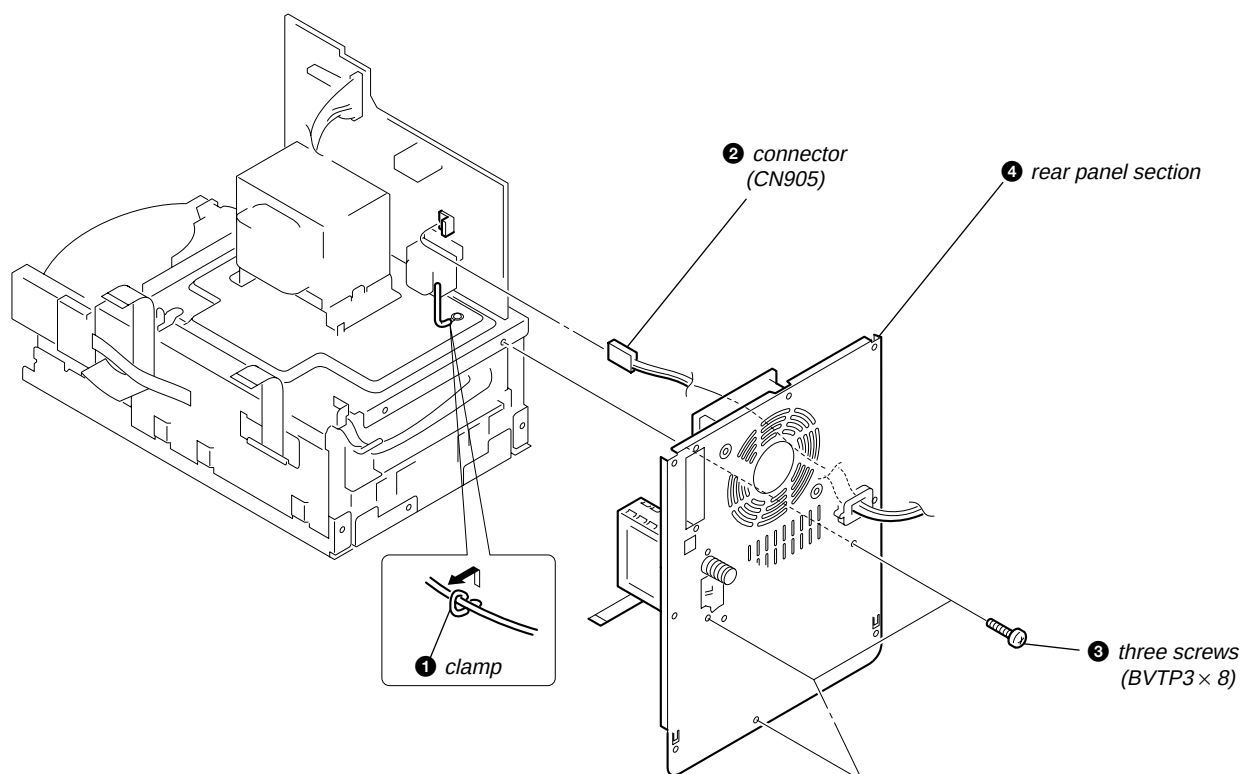
1-9. AMP SECTION



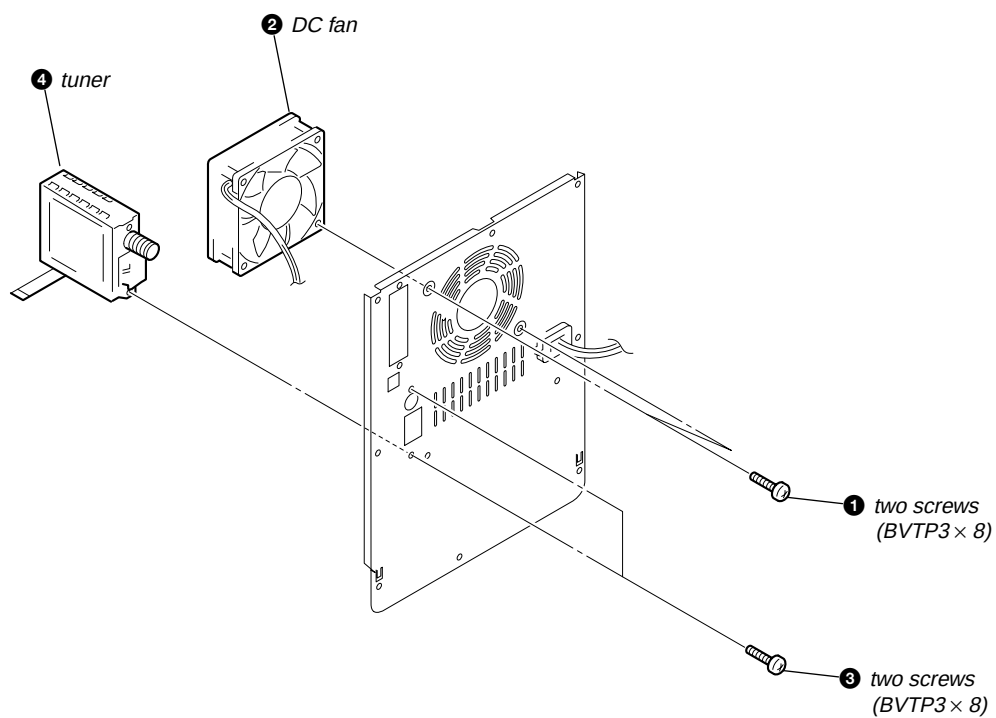
1-10. AMP BOARD



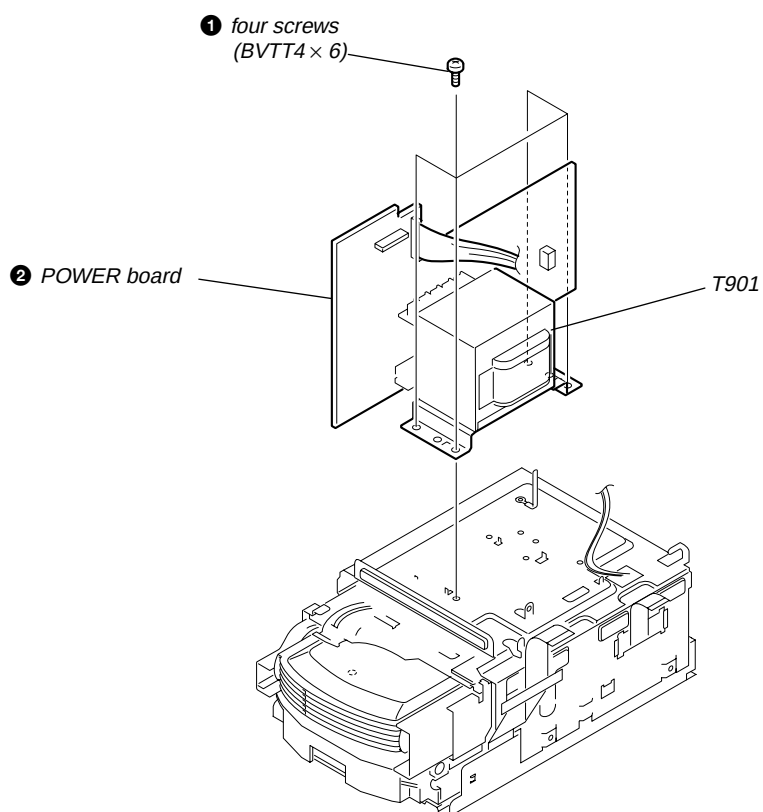
1-11. REAR PANEL SECTION



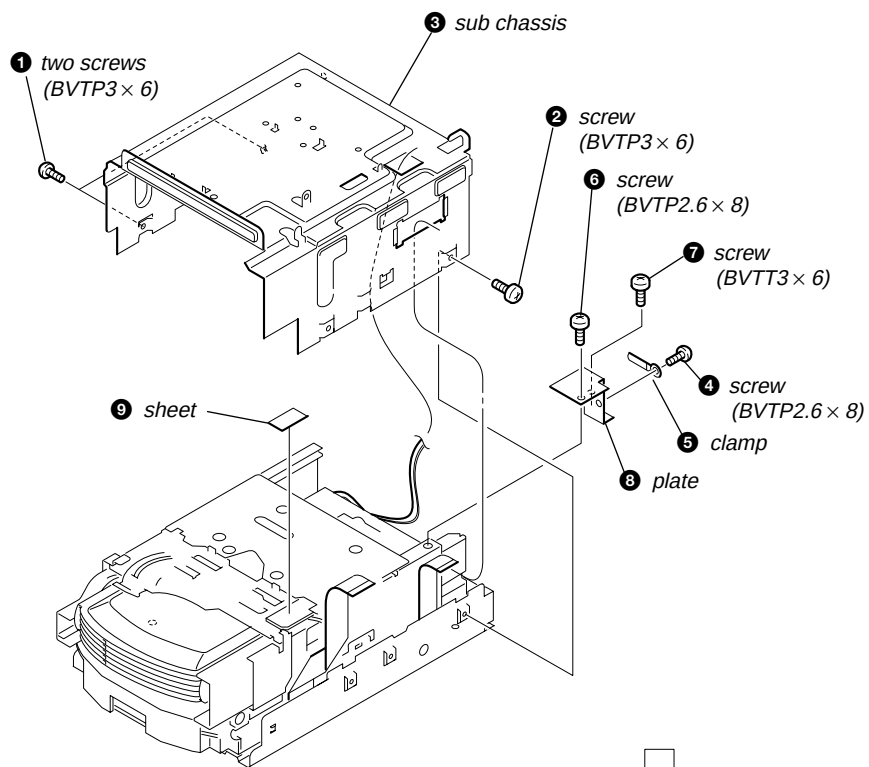
1-12. TUNER, DC FAN



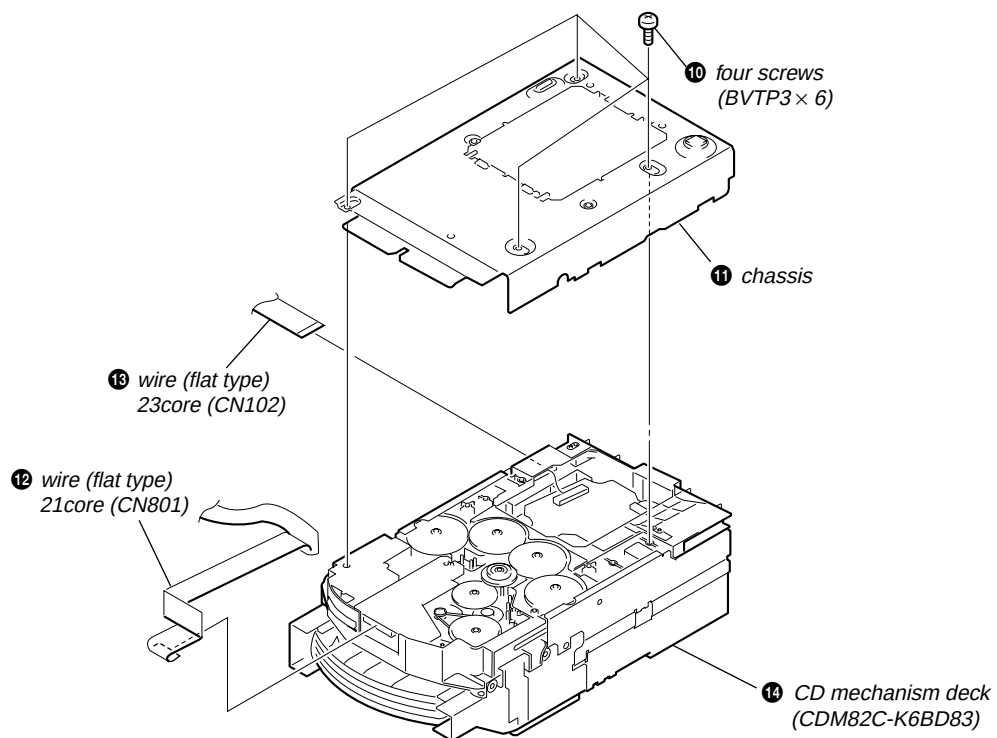
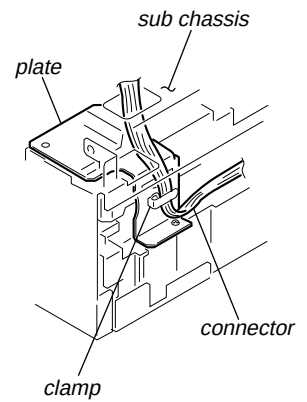
1-13. POWER BOARD



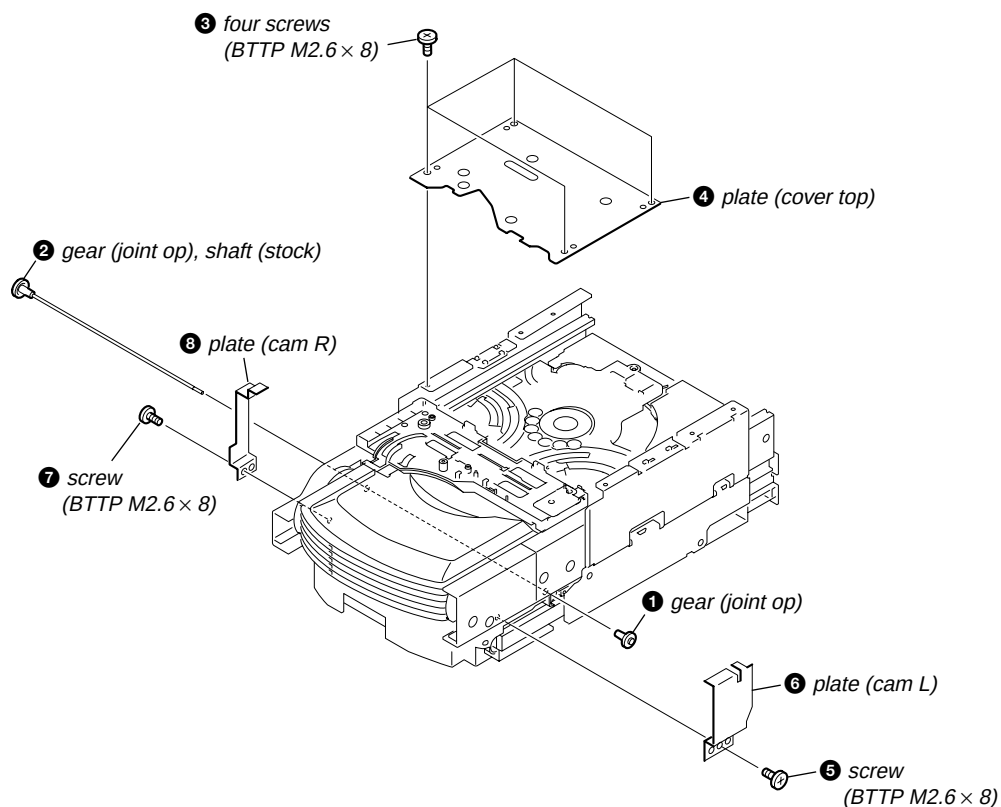
1-14. CD MECHANISM DECK (CDM82C-K6BD83)



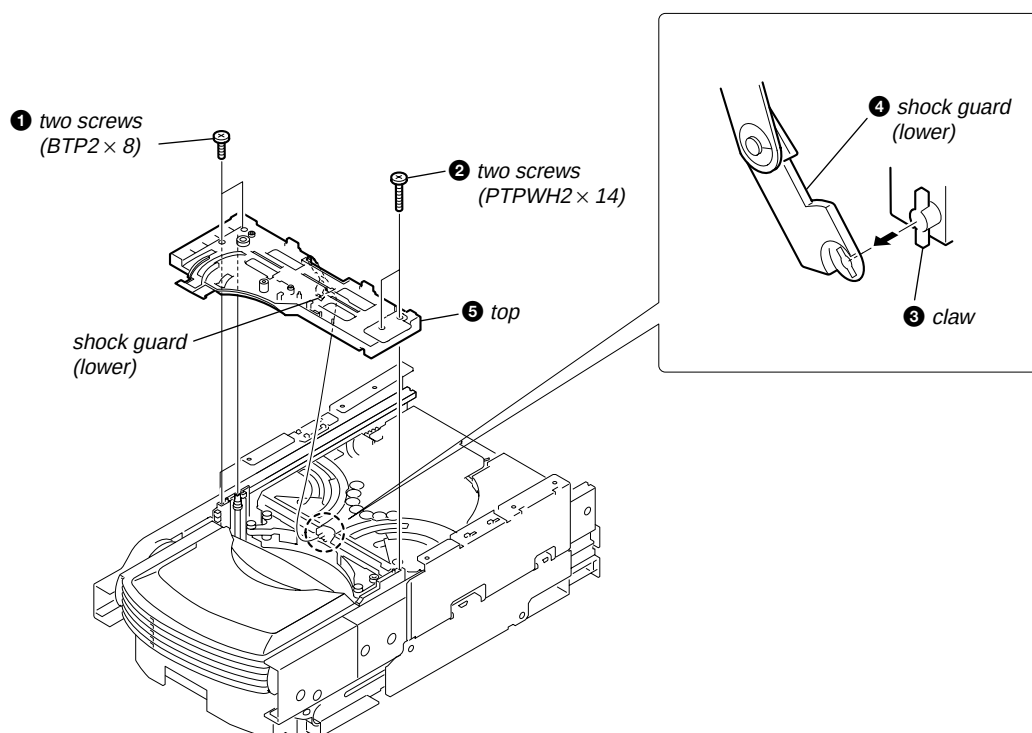
Please attach connector, as shown in a figure.



1-15. PLATE (COVER TOP)

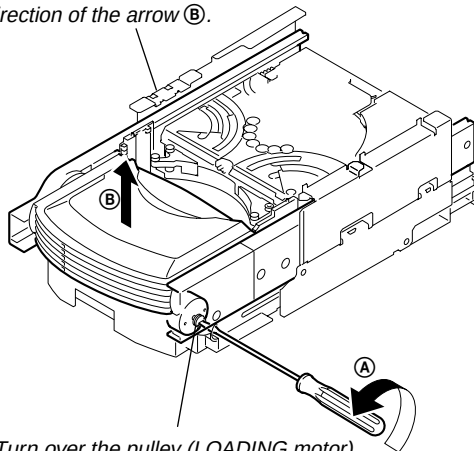


1-16. TOP SECTION



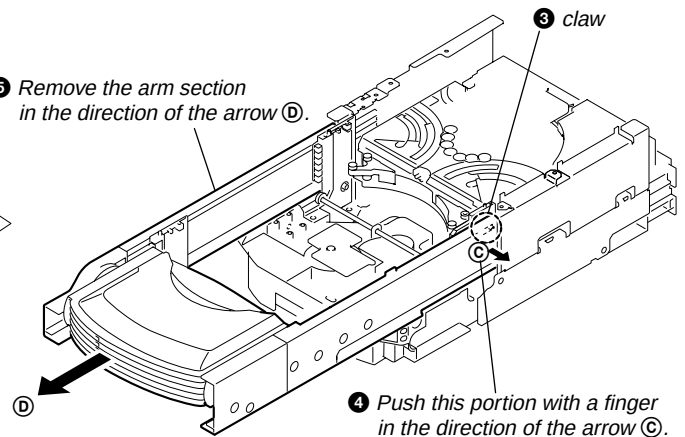
1-17. ARM SECTION

- ② Slide the arm section in the direction of the arrow ⑧.



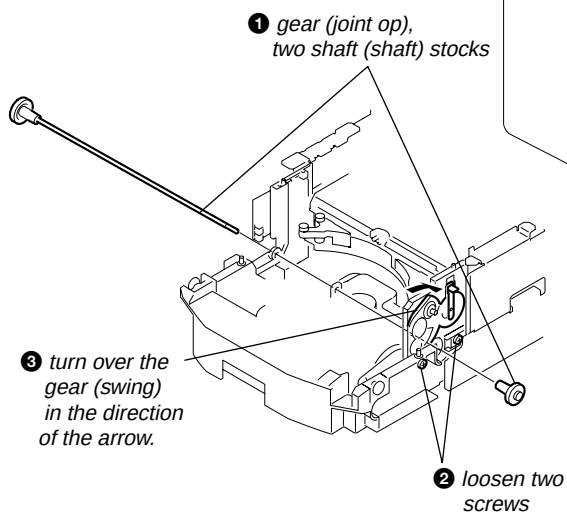
- ① Turn over the pulley (LOADING motor) in the direction of the arrow ①.

- ⑤ Remove the arm section in the direction of the arrow ⑤.

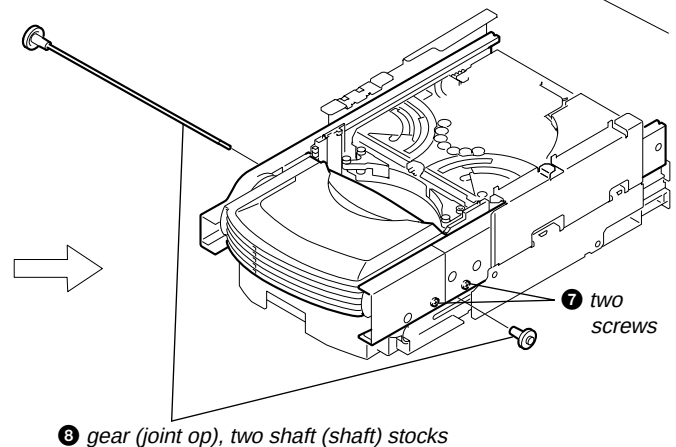
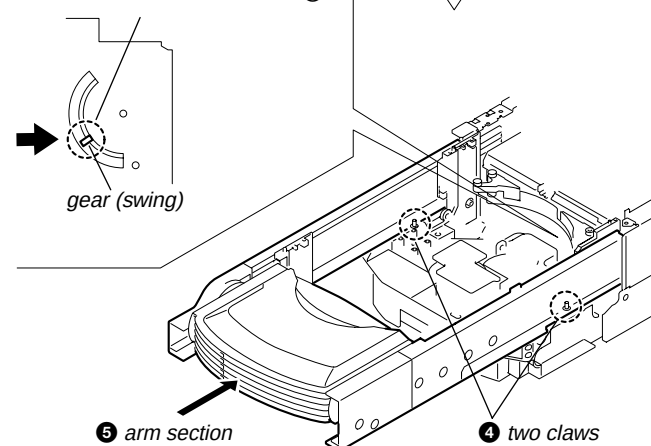


- ④ Push this portion with a finger in the direction of the arrow ④.

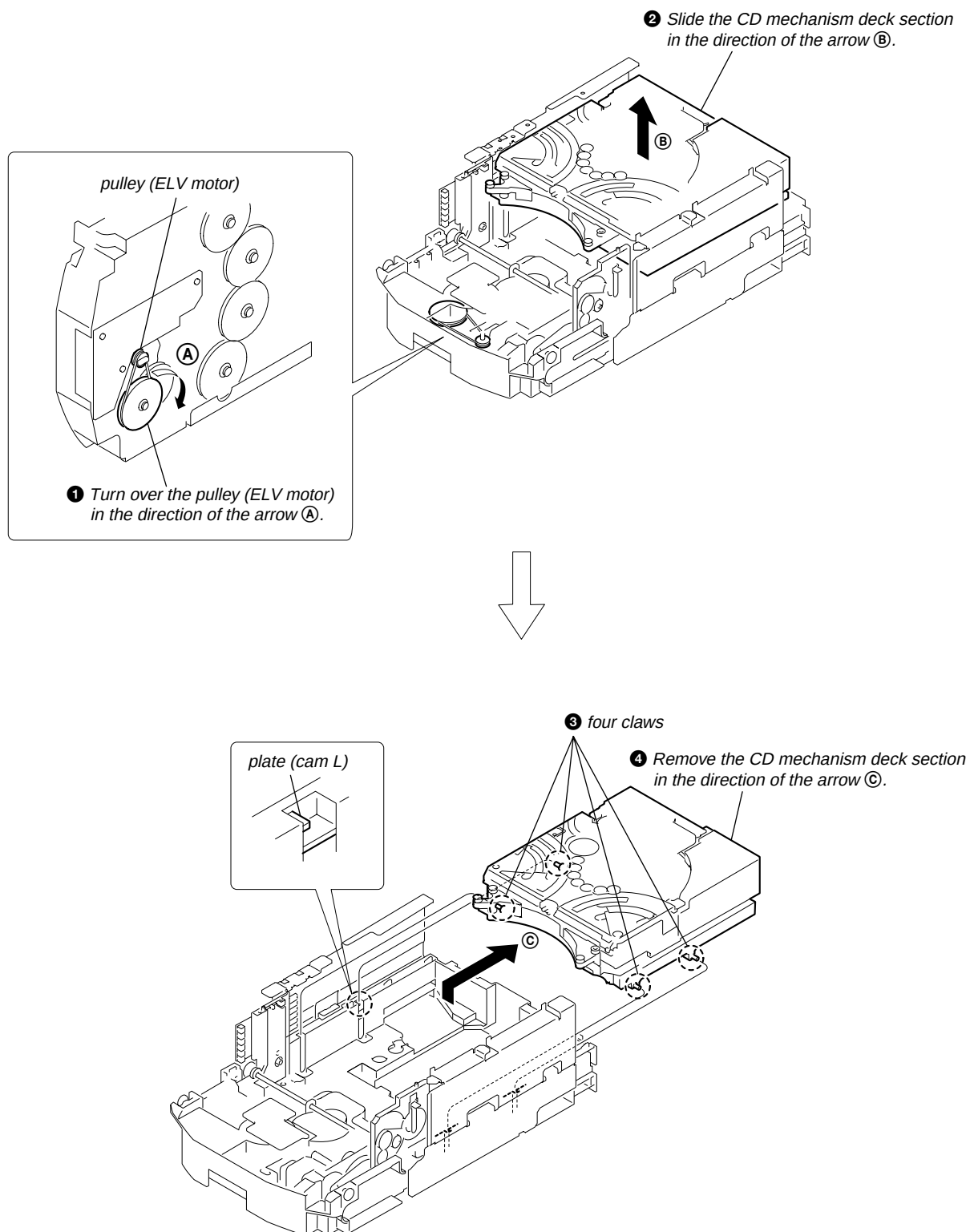
PRECAUTION DURING ARM SECTION INSTALLATION



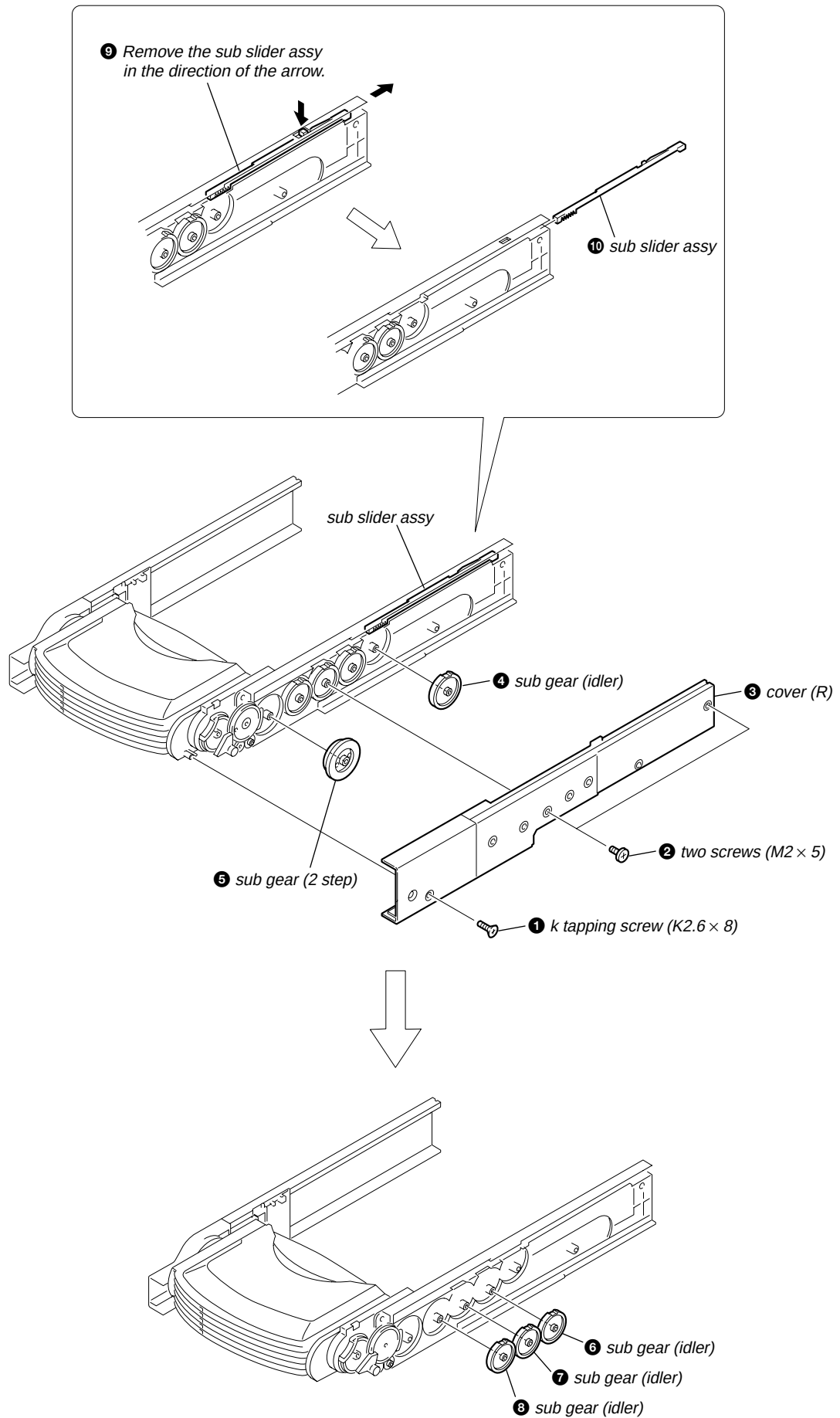
- ⑥ Push this portion with a finger in the direction of the arrow ⑥.



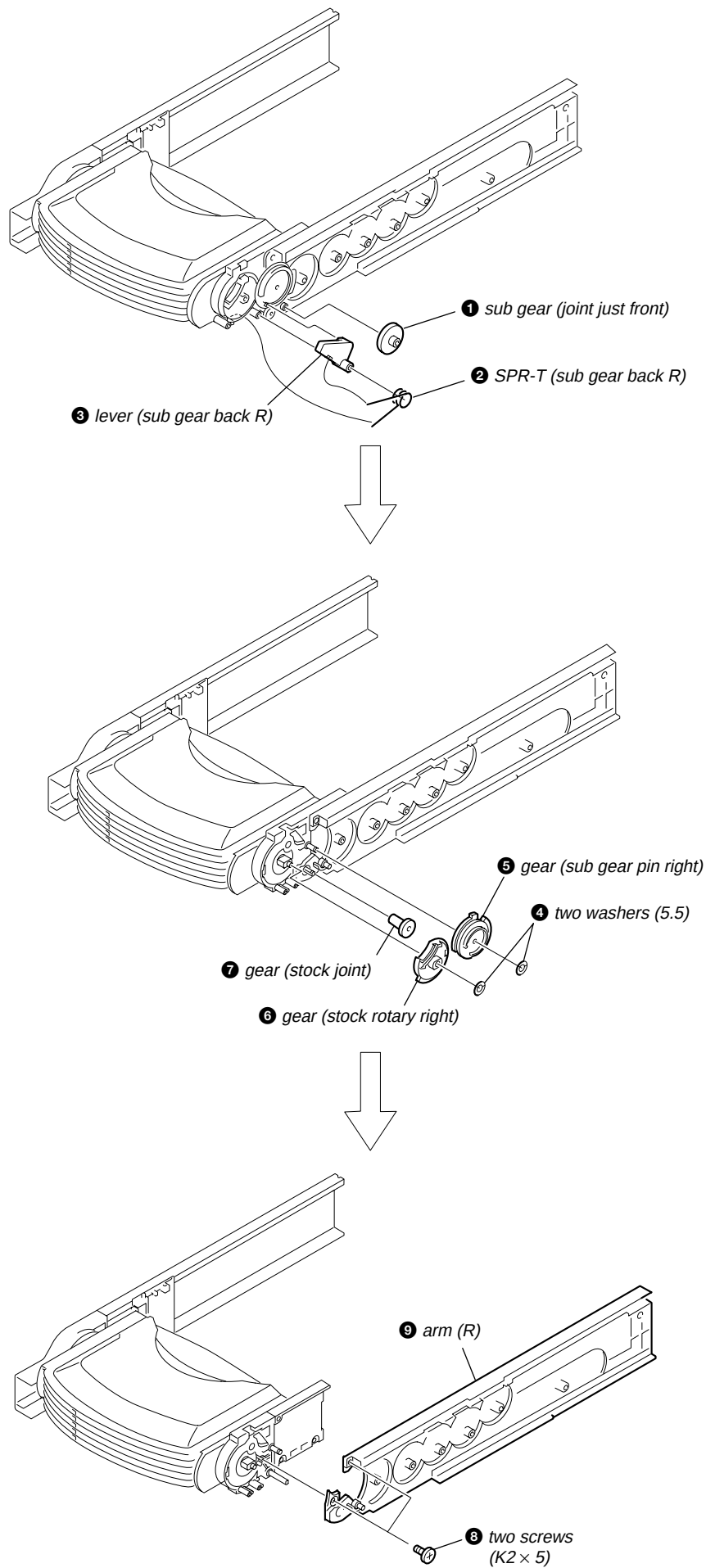
1-18. CD MECHANISM DECK SECTION



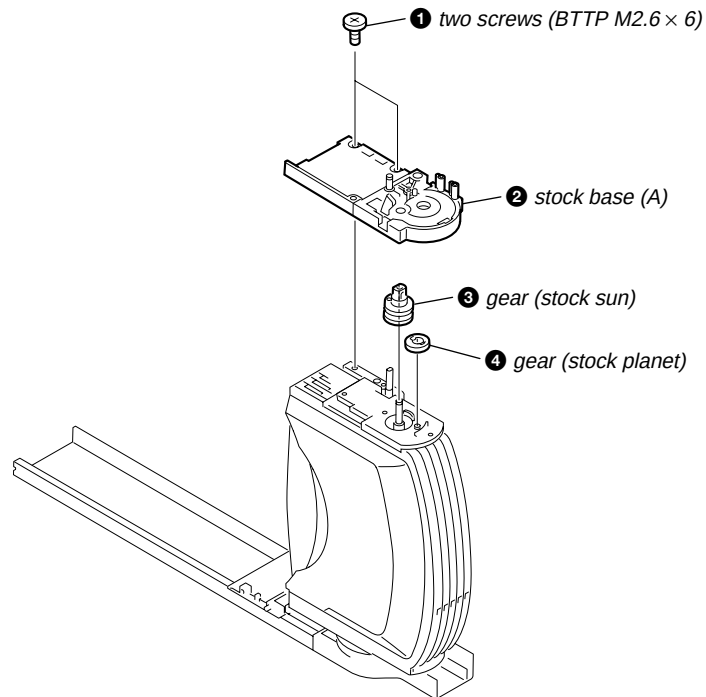
1-19. SUB GEAR (2 STEP), SUB SLIDER ASSY



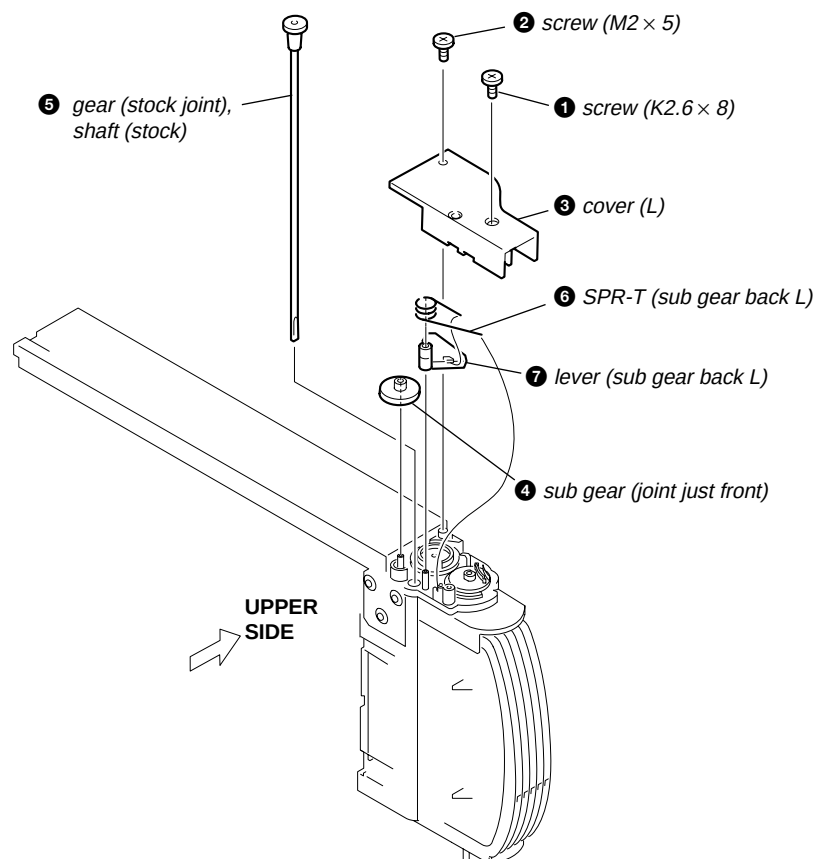
1-20. ARM (R)



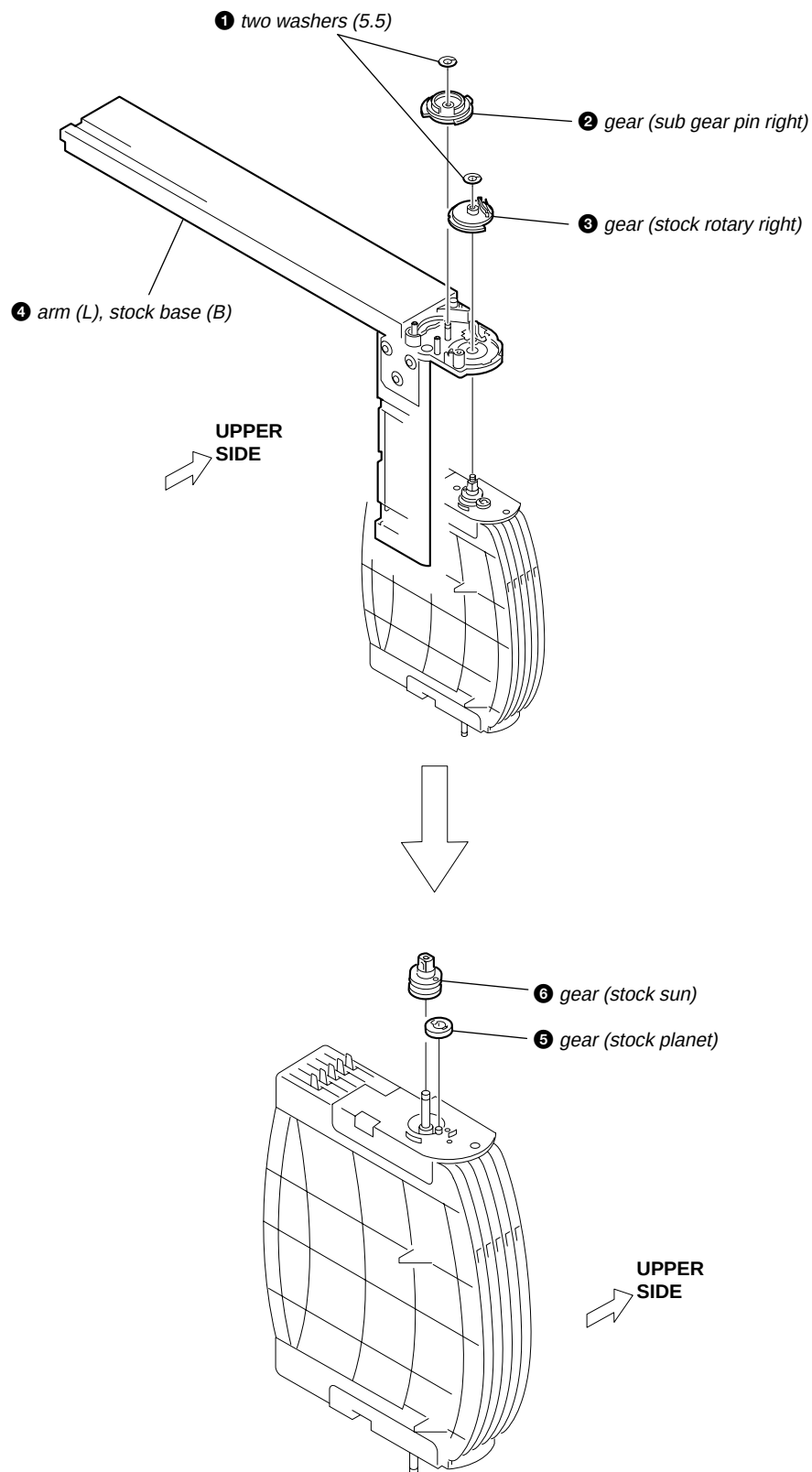
1-21. GEAR (STOCK PLANET) (RIGHT)



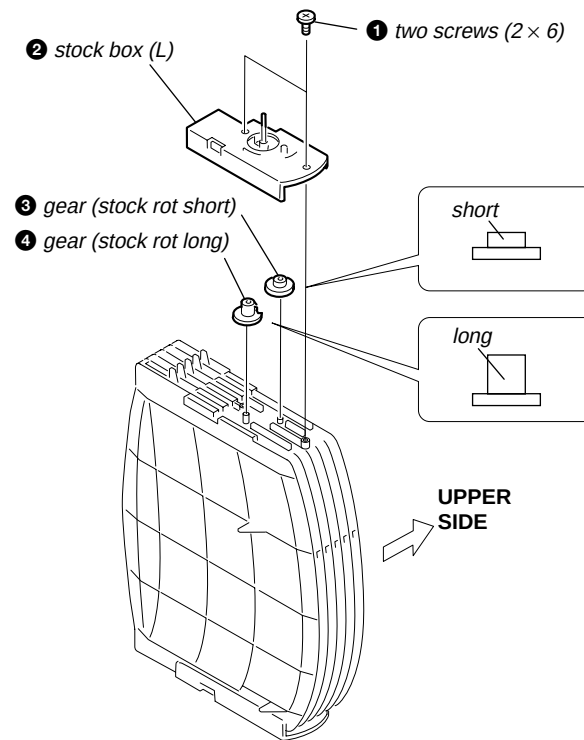
1-22. LEVER (SUB GEAR BACK L)



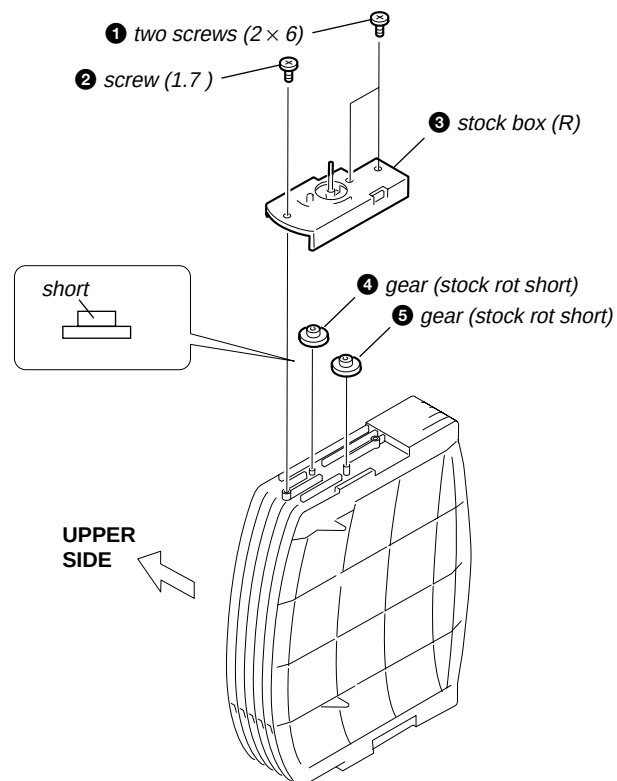
1-23. ARM (L)



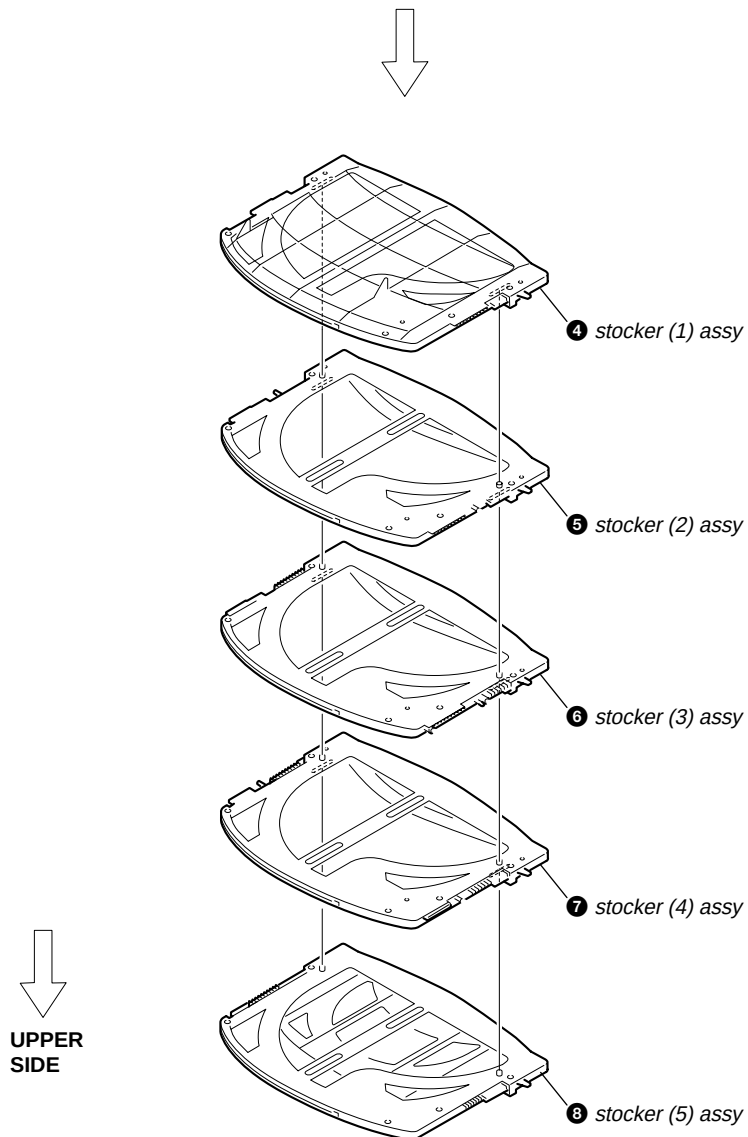
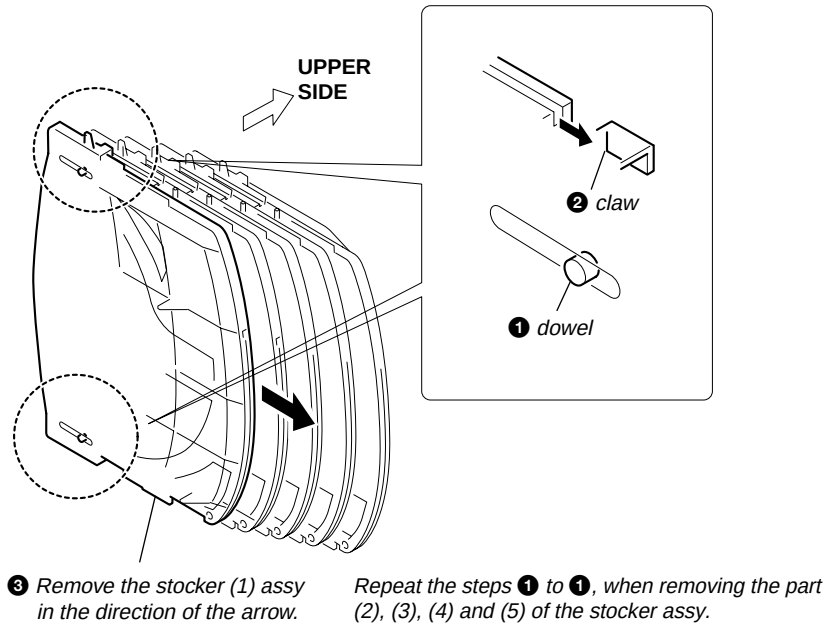
1-24. GEAR (STOCK ROT LONG) (LEFT)



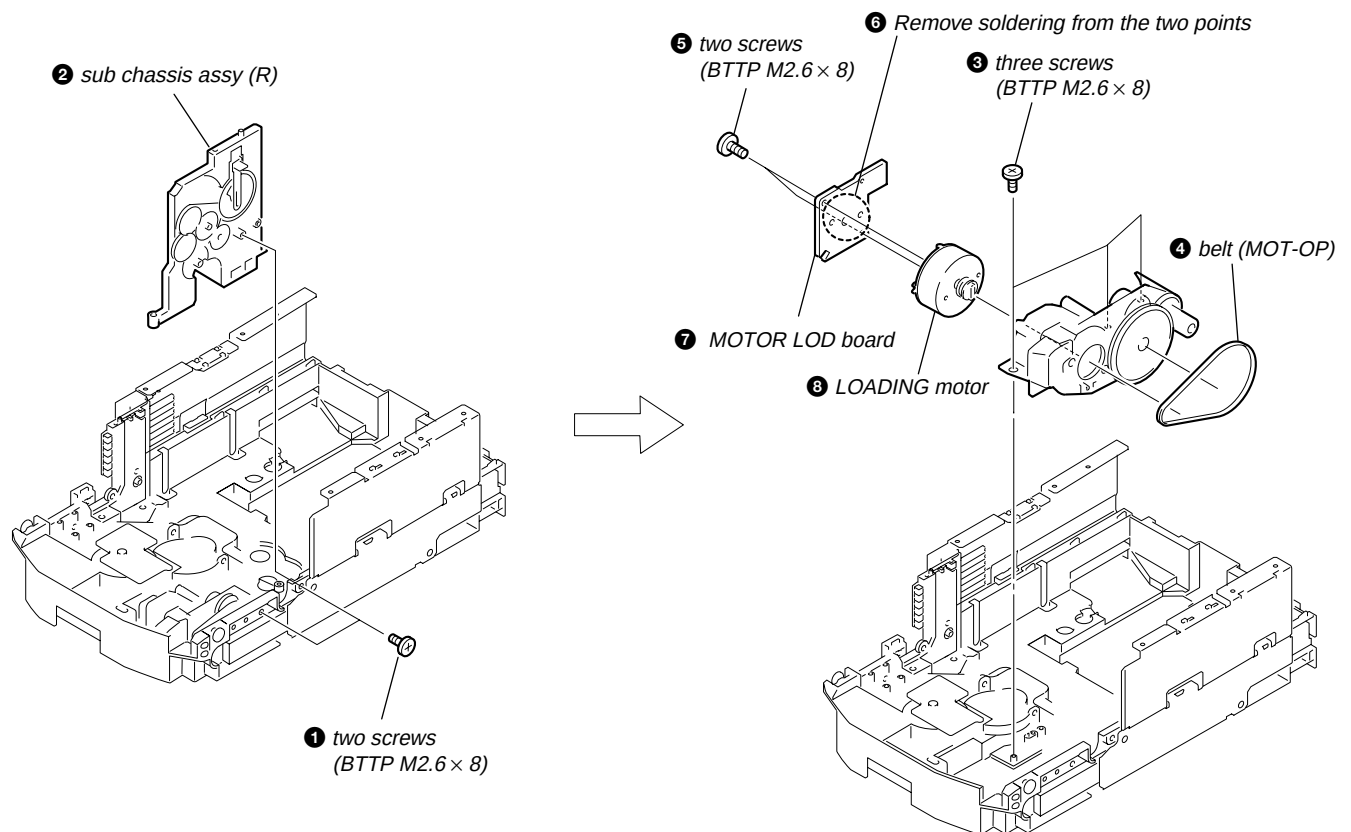
1-25. GEAR (STOCK ROT SHORT) (RIGHT)



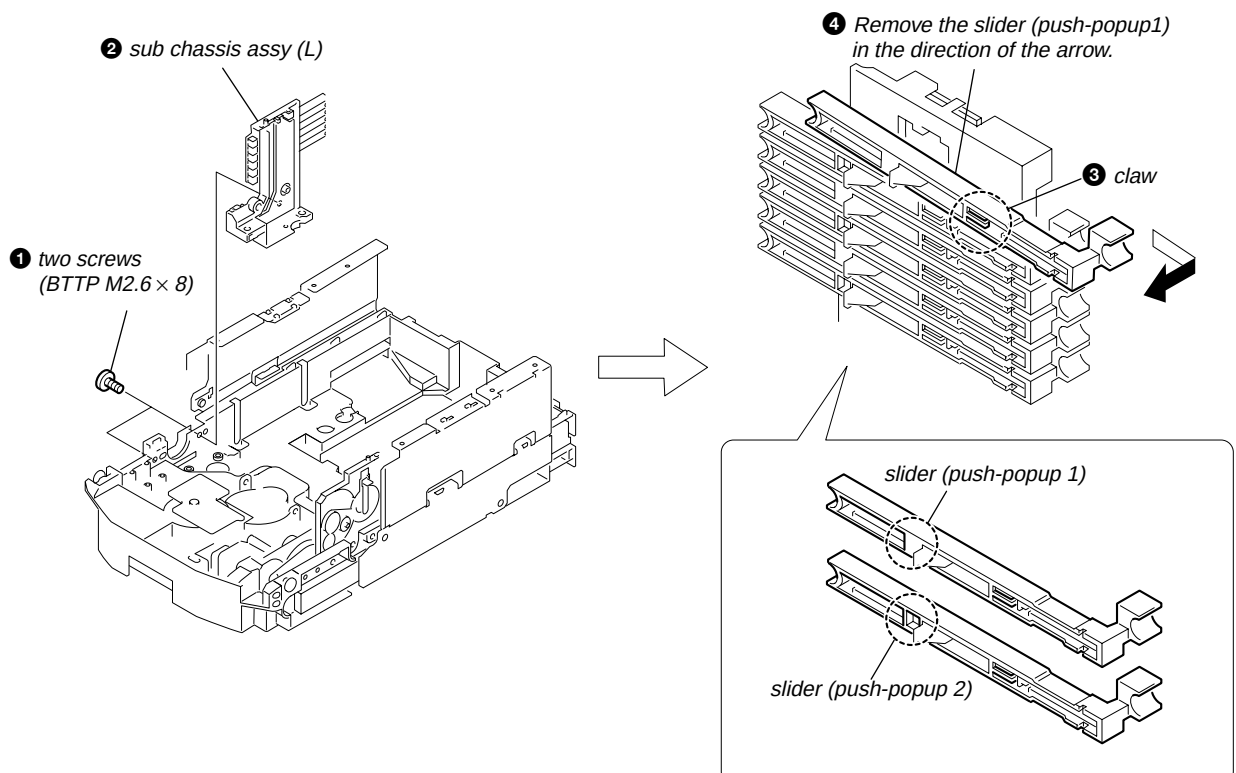
1-26. STOCKER (1) ASSY TO STOCKER (5) ASSY



1-27. LOADING MOTOR

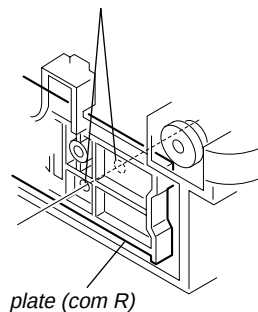


1-28. SLIDER (PUSH-POPUP)



1-29. ROTARY ENCODER

- ④ Rotate the ELV motor until the position for the hole on the chassis can be seen through the plate (comR).



- ① three screws
(BTP M2.6 × 6)

- ② RELAY board

- ③ Rotate the ELV motor in the direction of the arrow.

- ⑤ screw
(PTPWH2.6 × 8)

- ⑦ screw
(PTPWH2.6 × 8)

- ⑥ gear (pulley UD)

- ⑨ screw
(PTPWH2.6 × 8)

- ⑧ gear (geneva 2)

- ⑪ screw
(PTPWH2.6 × 8)

- ⑩ gear (geneva 1)

- ⑬ step tapping screw
(PWH2 × 6)

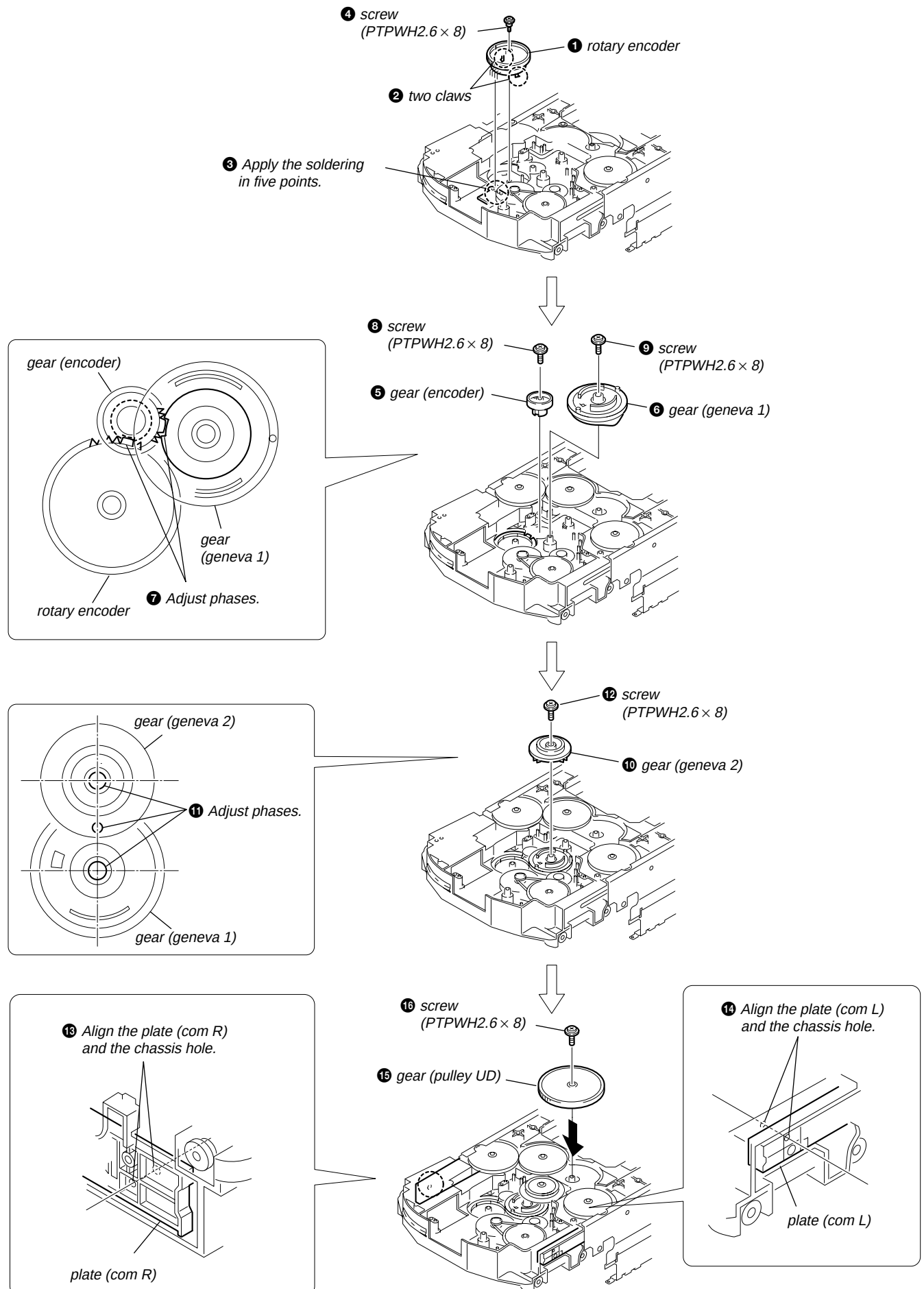
- ⑫ gear (encoder)

- ⑮ rotary encoder

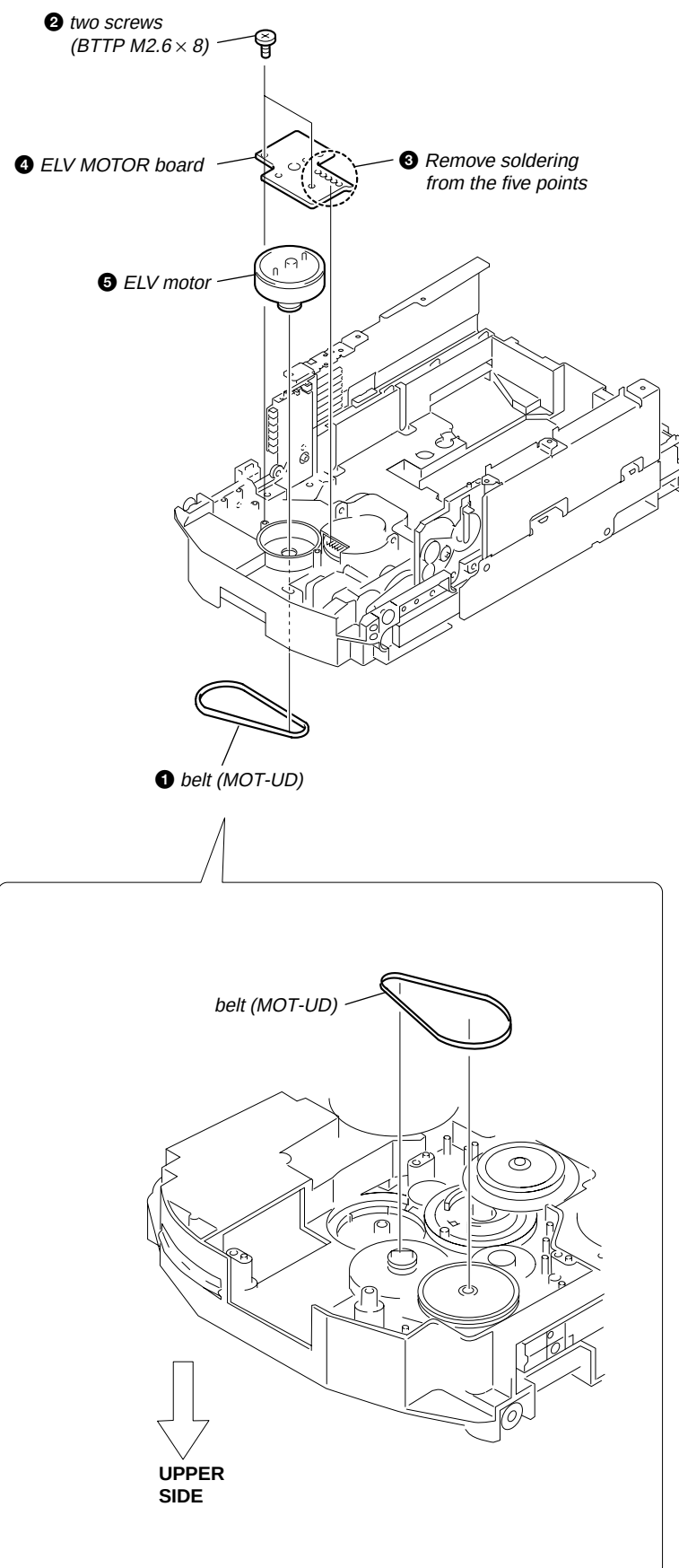
- ⑮ two claws

- ⑭ Remove soldering
from the five points

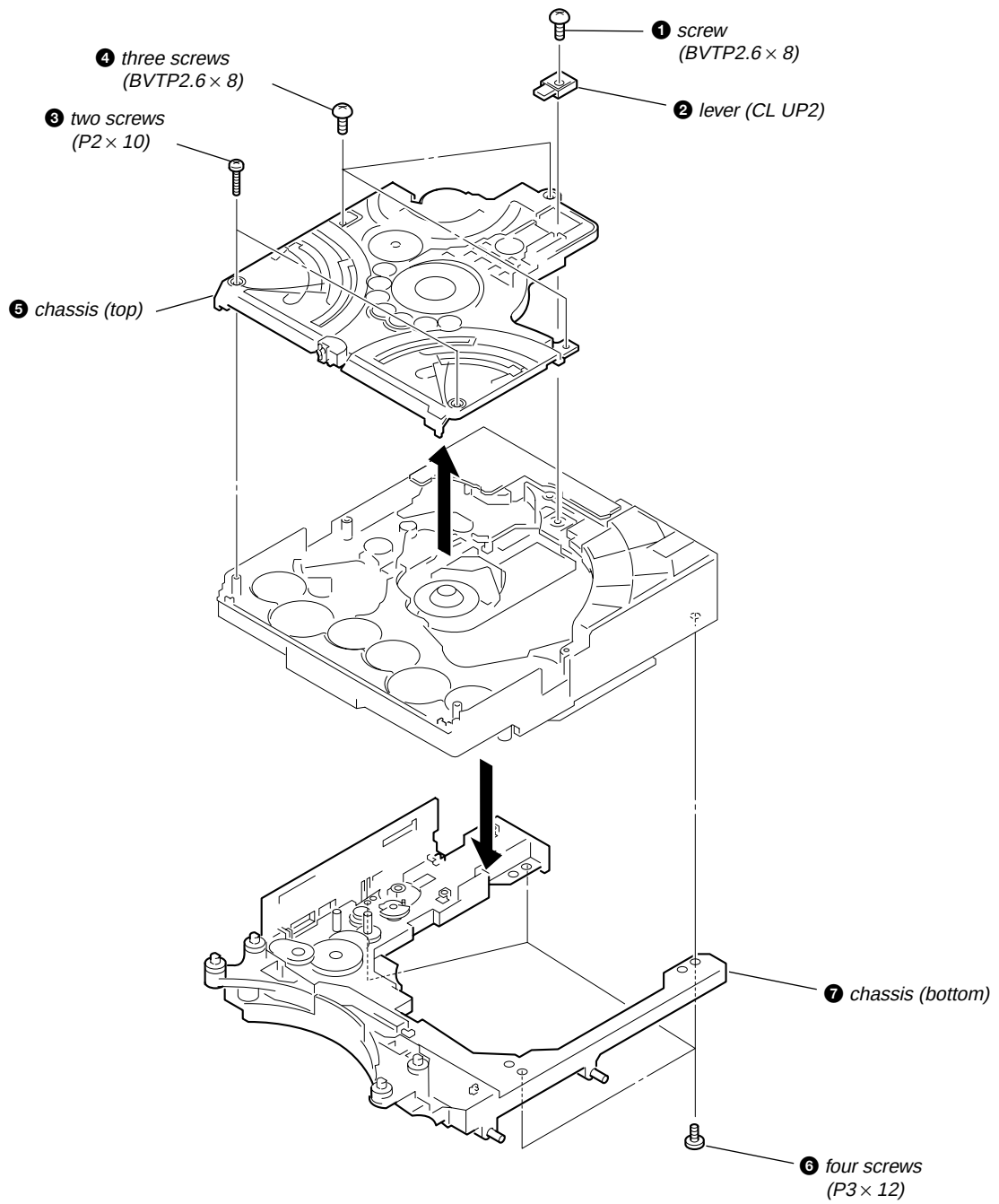
1-30. ASSEMBLING OF THE ROTARY ENCODER



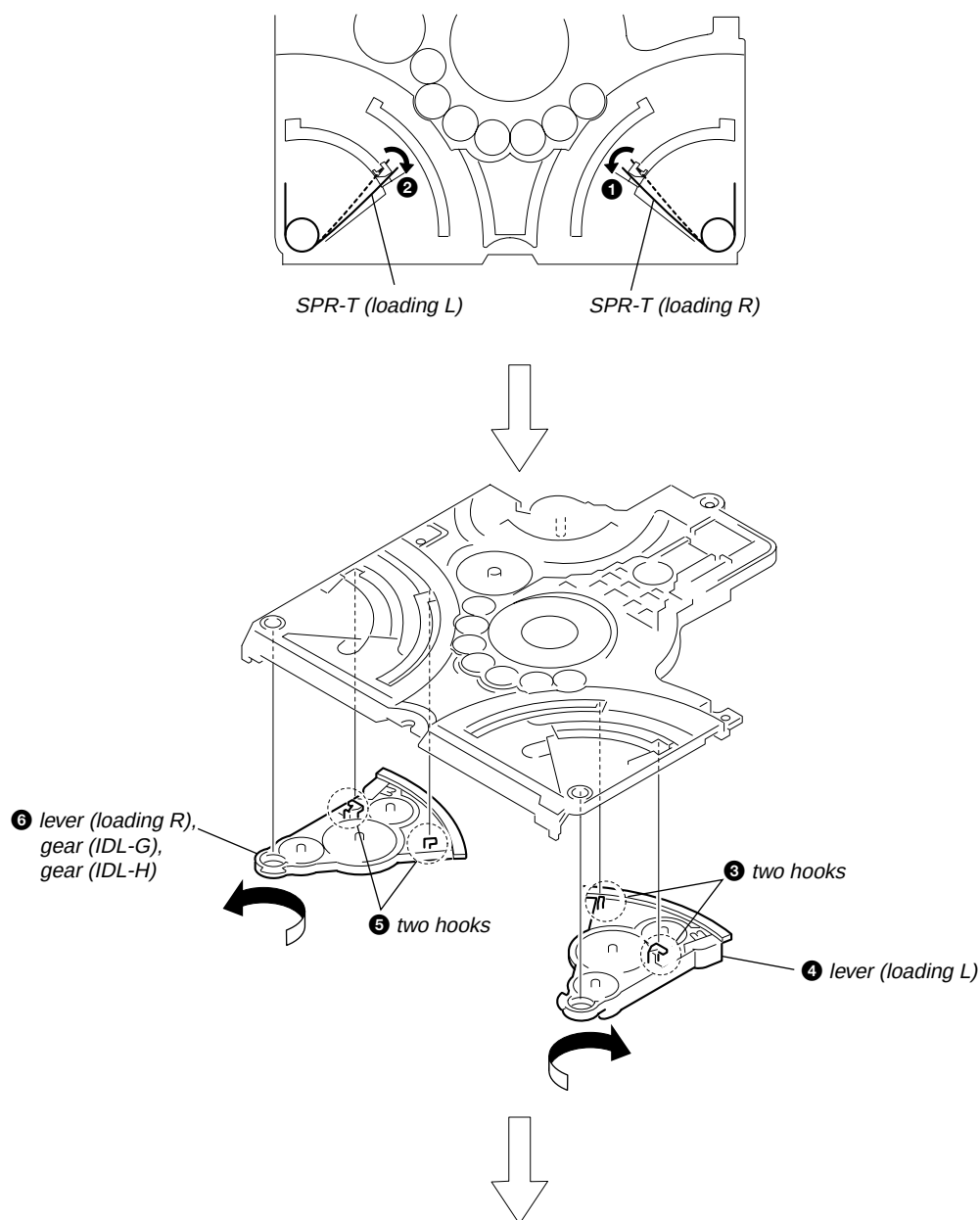
1-31. ELV MOTOR



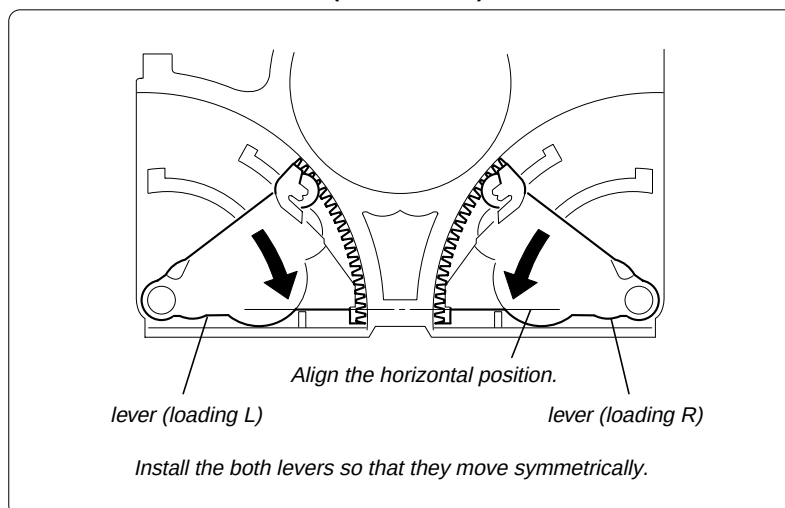
1-32. CHASSIS (TOP), CHASSIS (BOTTOM)



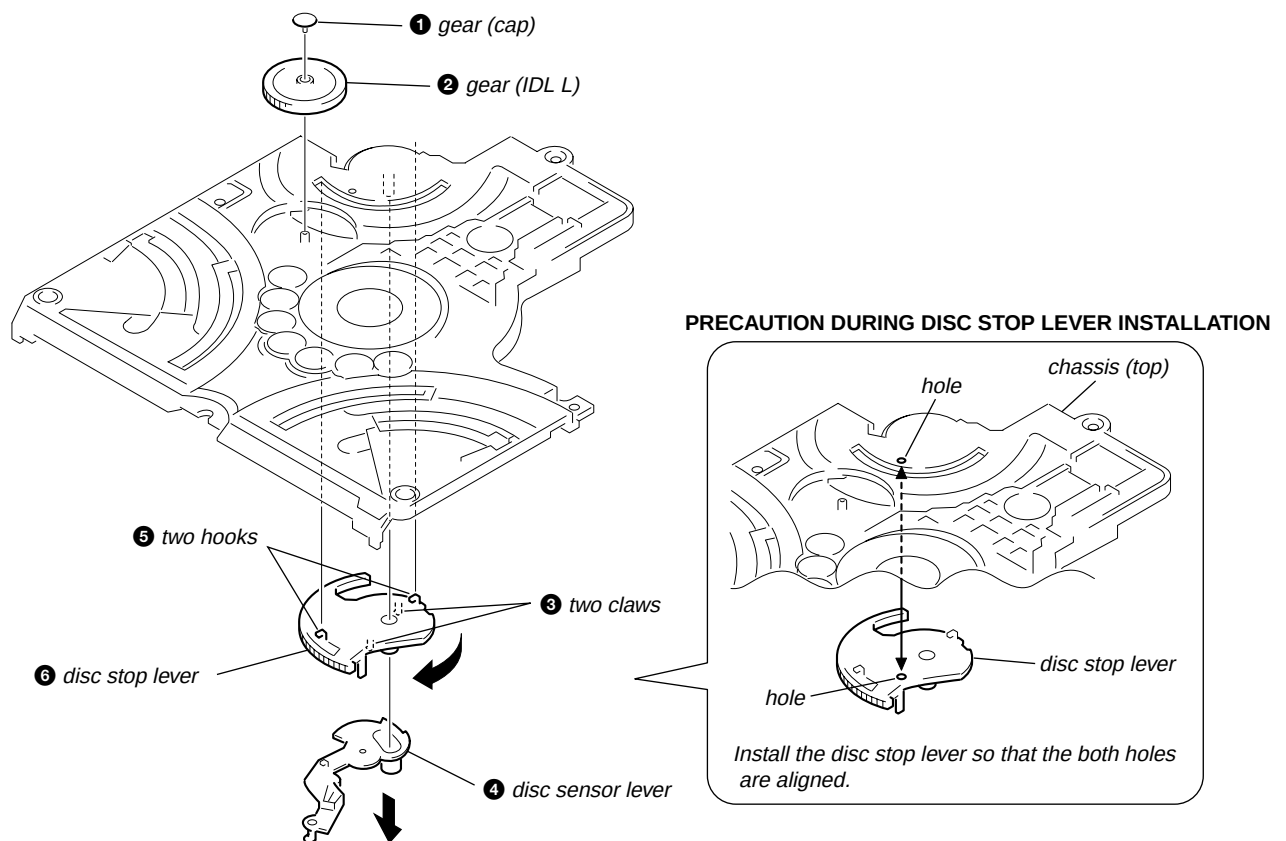
1-33. LEVER (LOADING R, LOADING L)



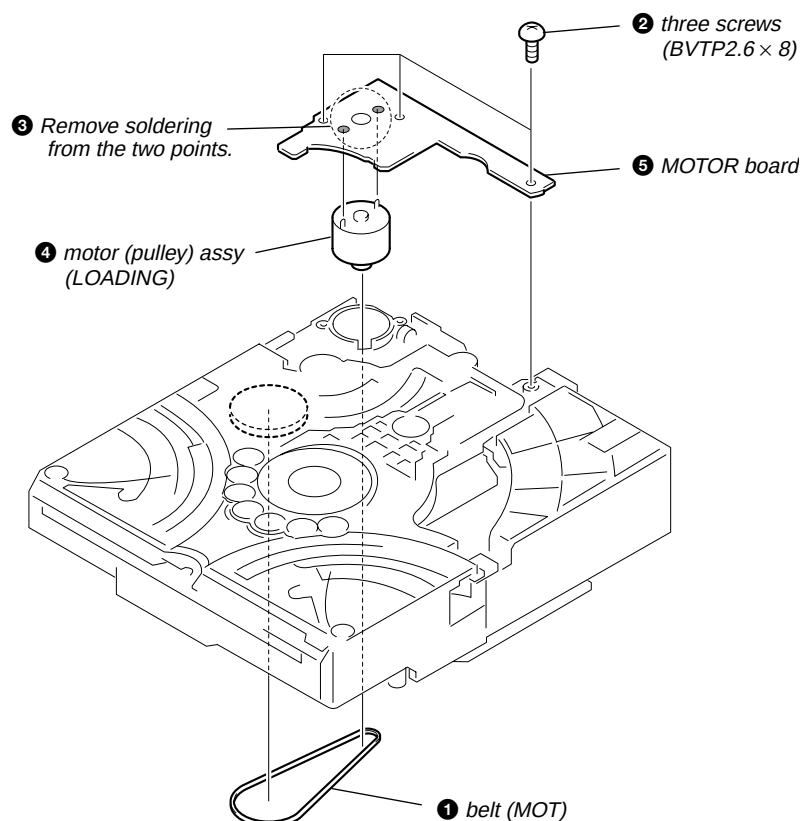
PRECAUTION DURING LEVER (LOADING R/L) INSTALLATION



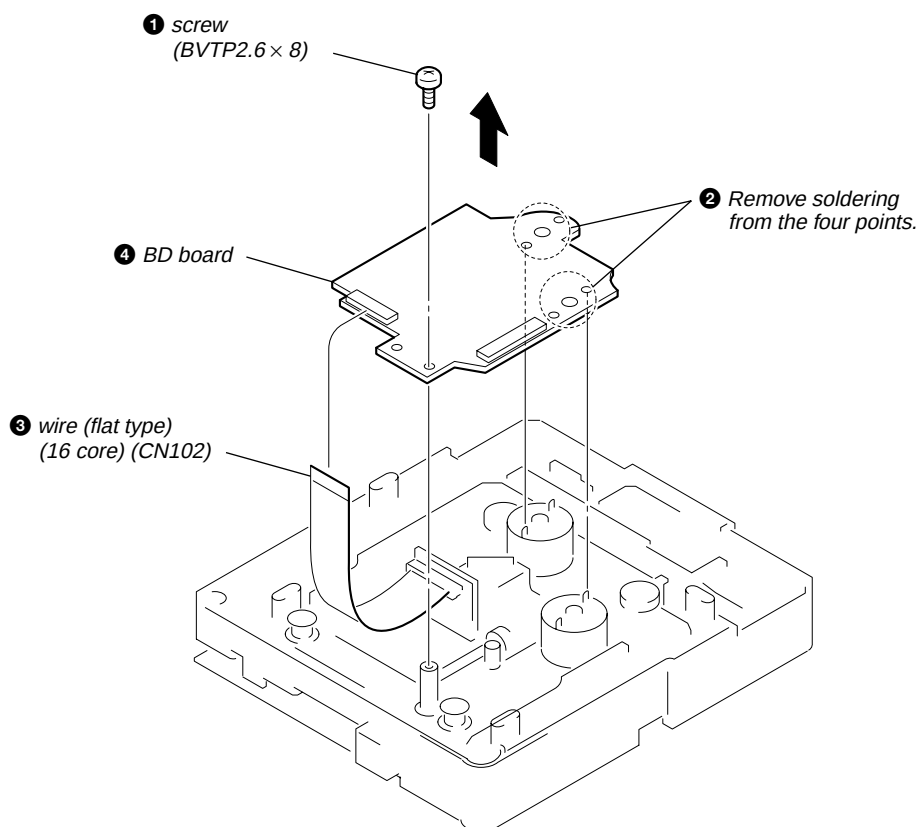
1-34. DISC STOP LEVER



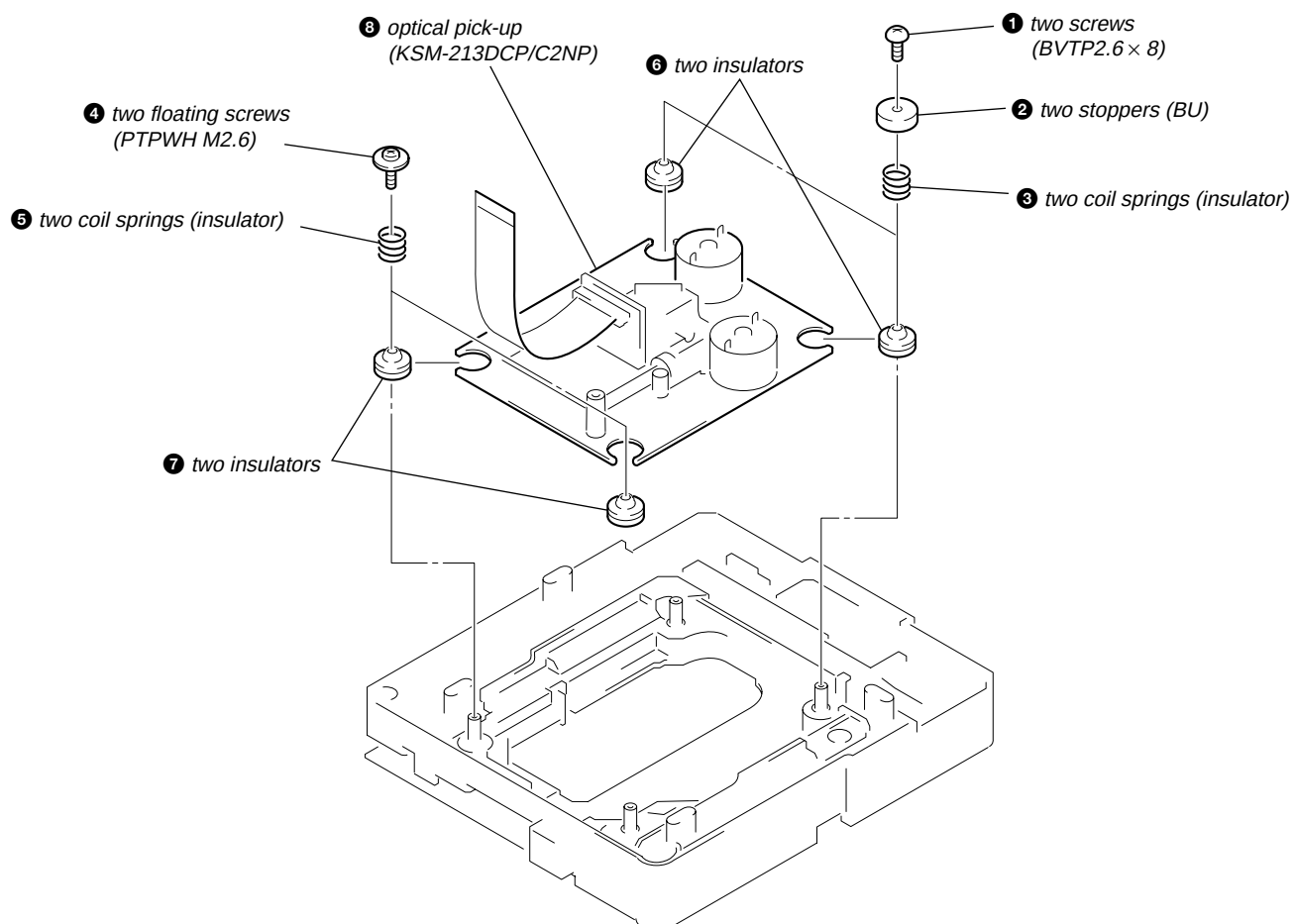
1-35. MOTOR BOARD



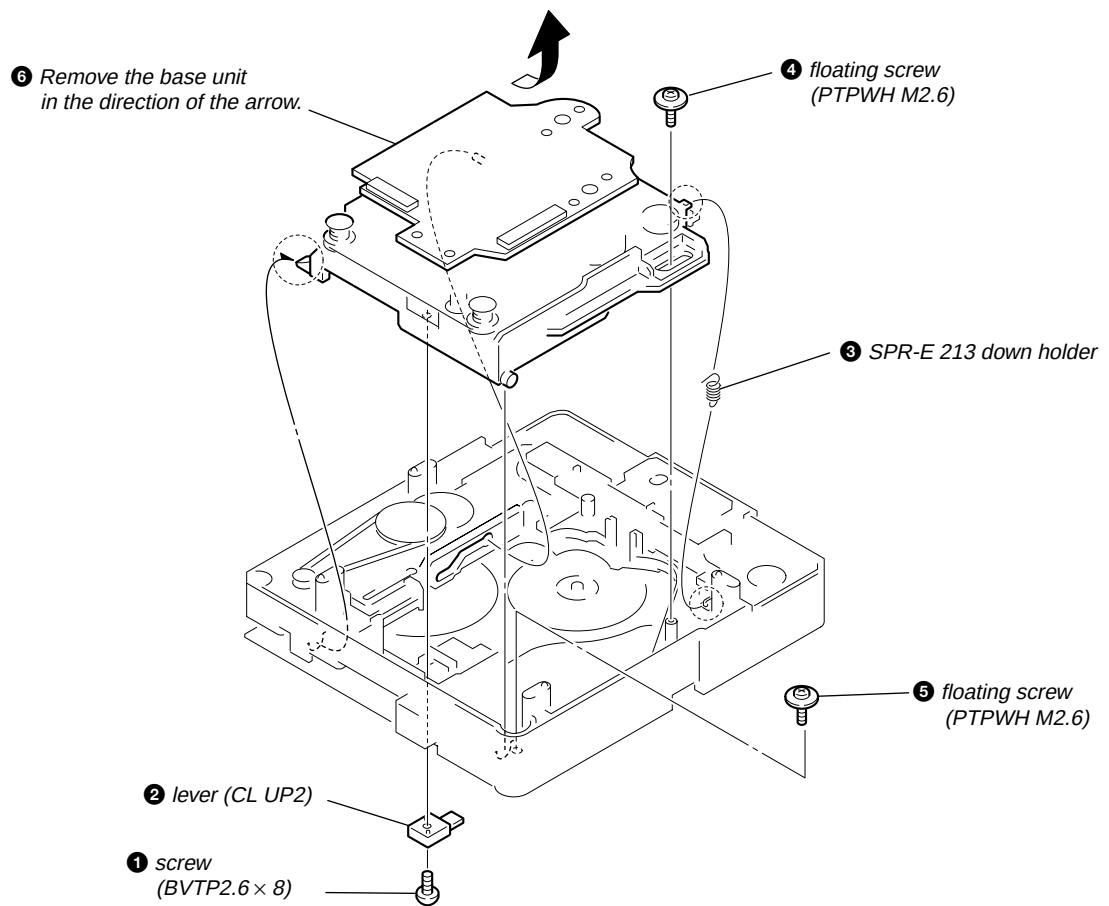
1-36. BD BOARD



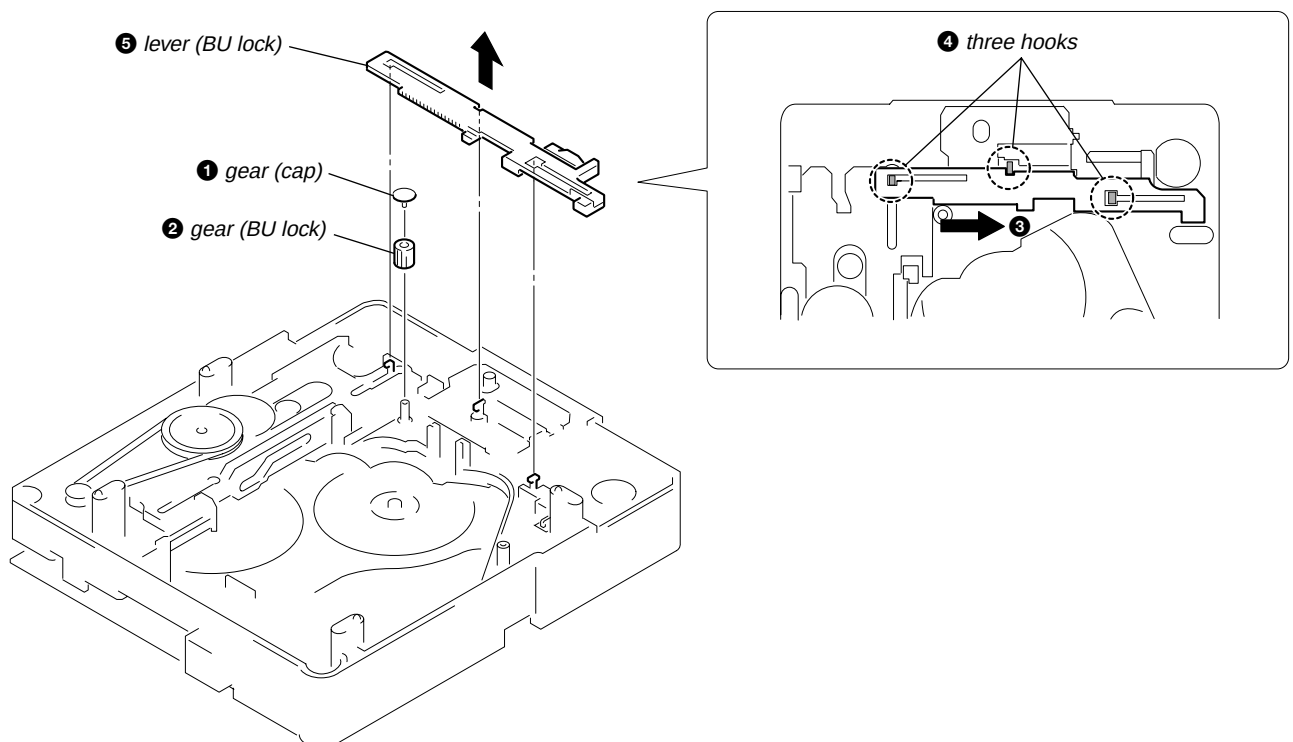
1-37. OPTICAL PICK-UP (KSM-213DCP/C2NP)



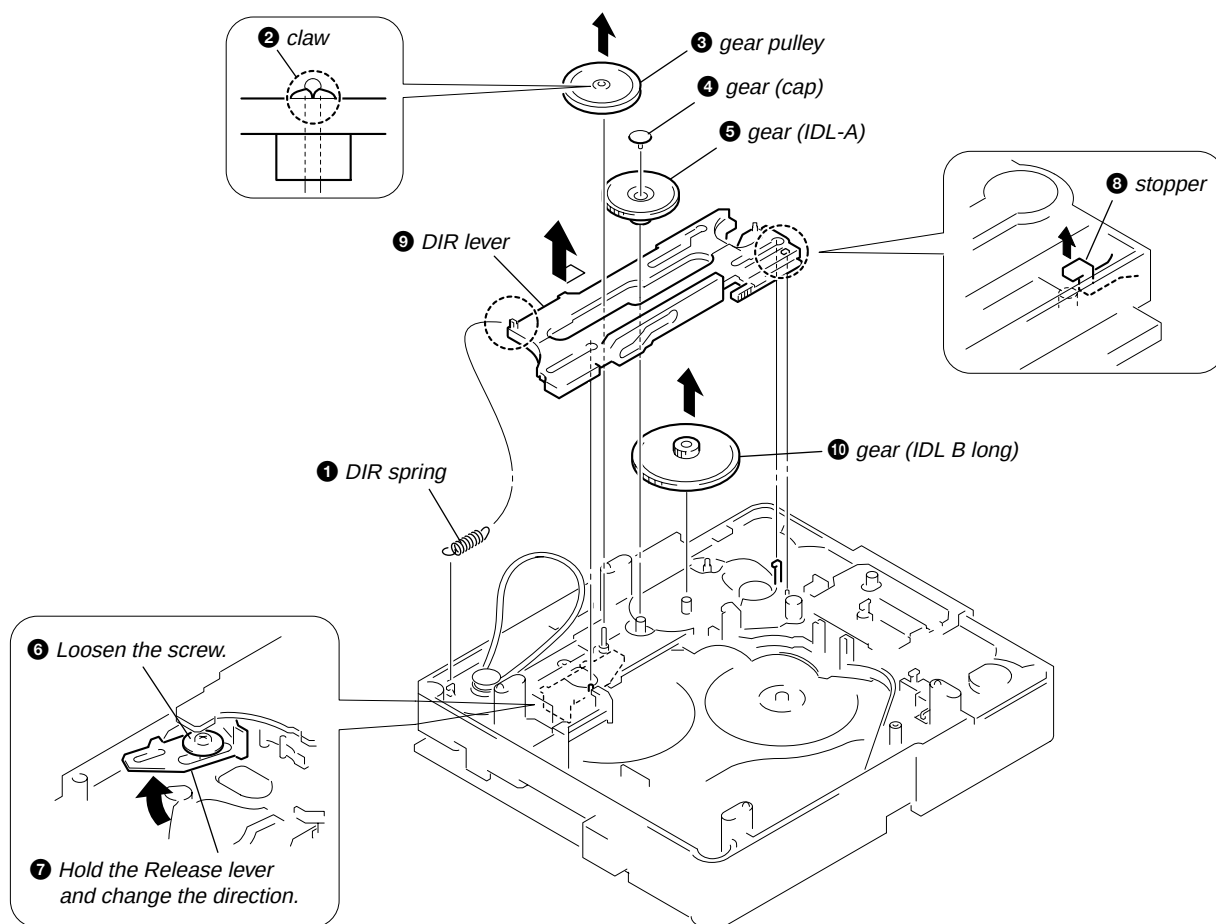
1-38. BASE UNIT SECTION



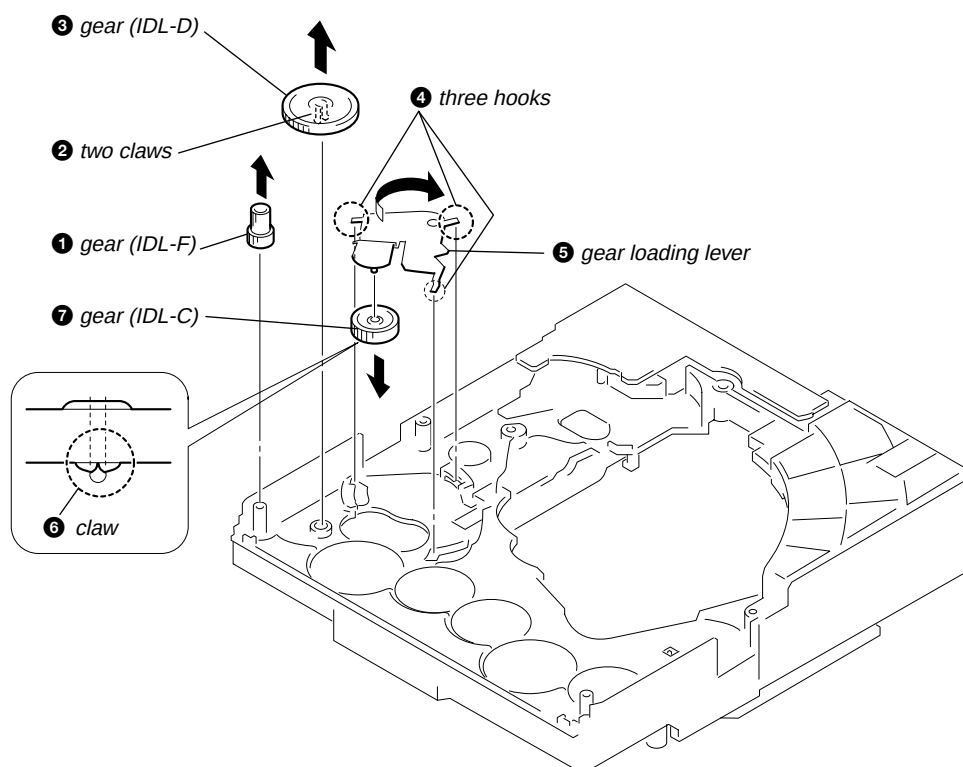
1-39. LEVER (BU LOCK)



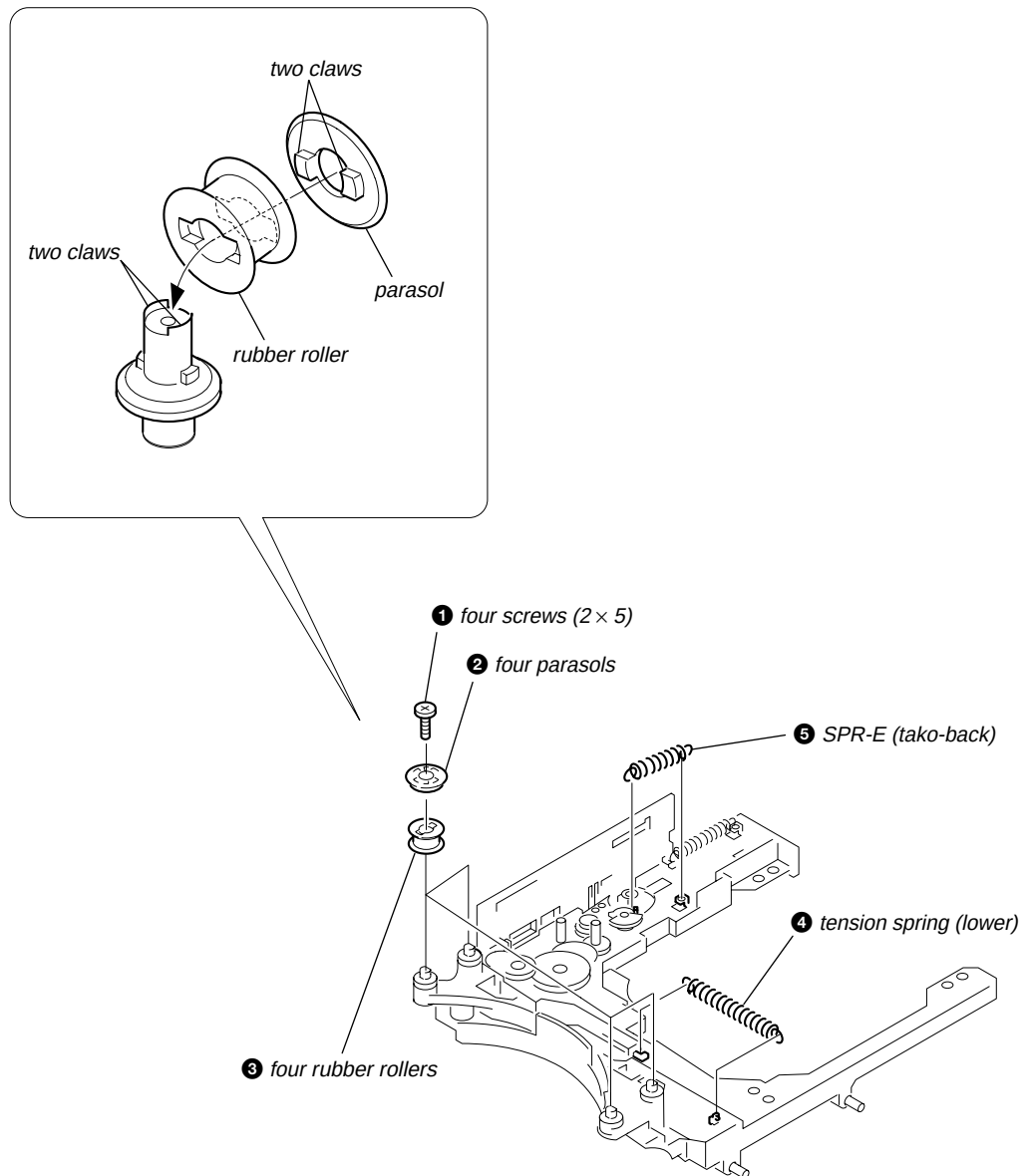
1-40. GEAR (IDL-B)



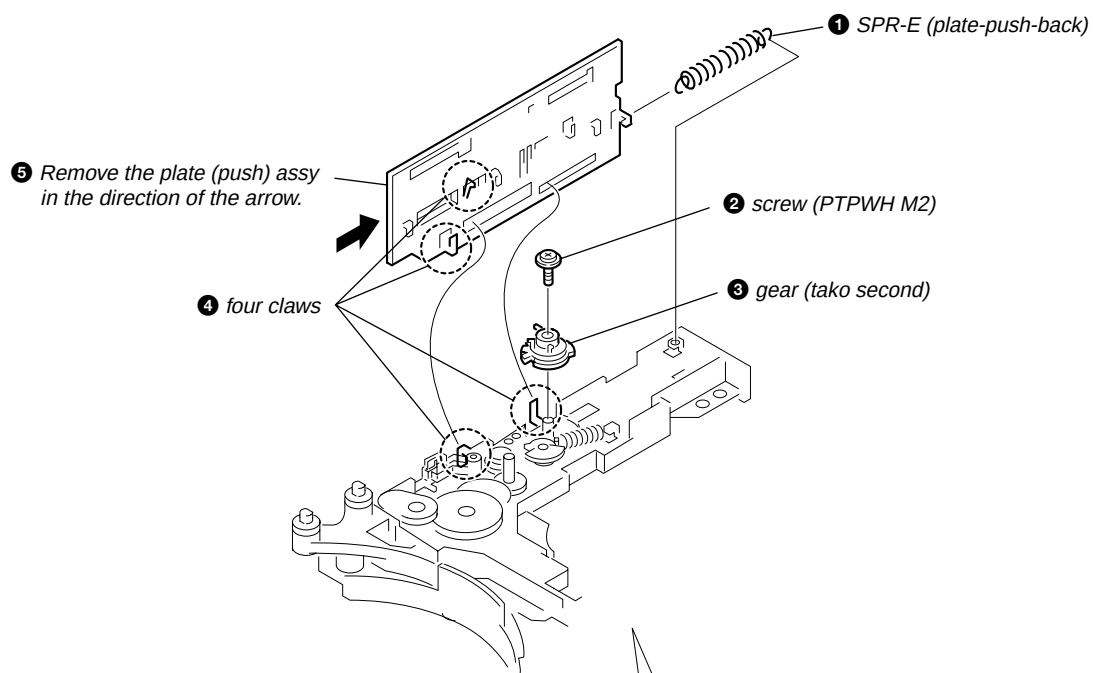
1-41. GEAR (IDL-C)



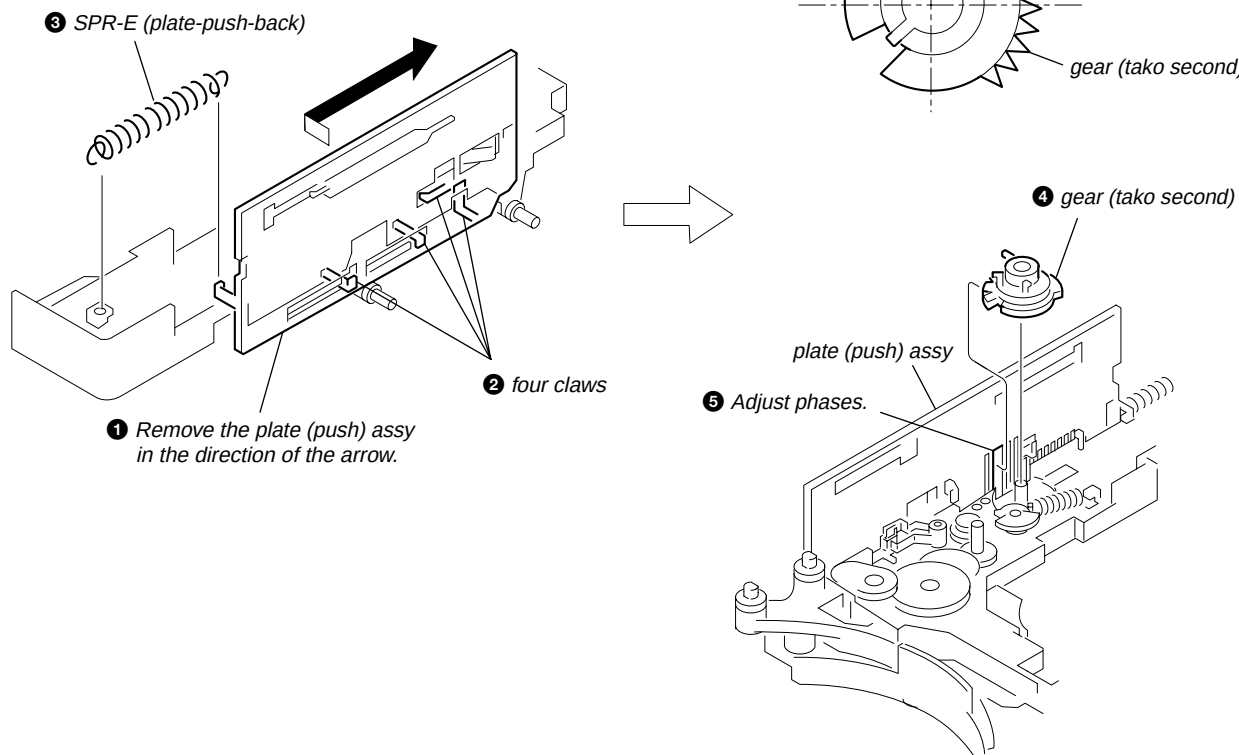
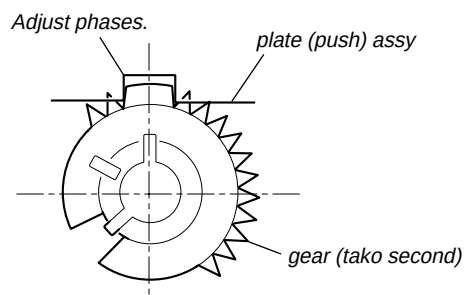
1-42. SPR-E (TAKO-BACK)



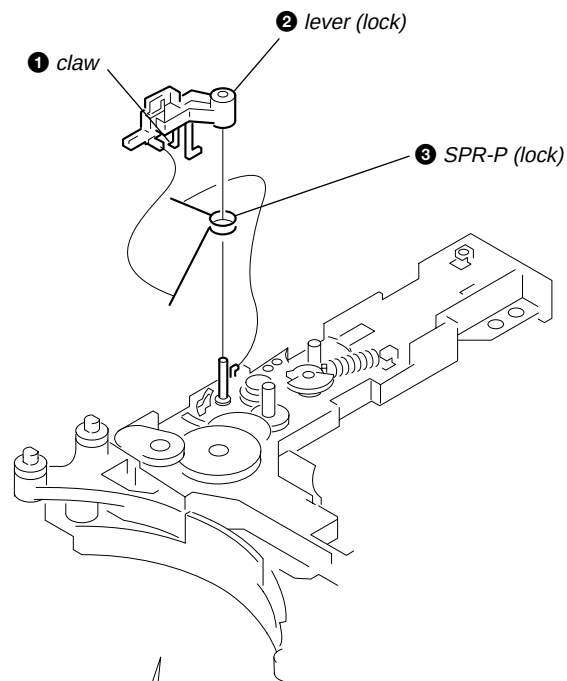
1-43. PLATE (PUSH) ASSY



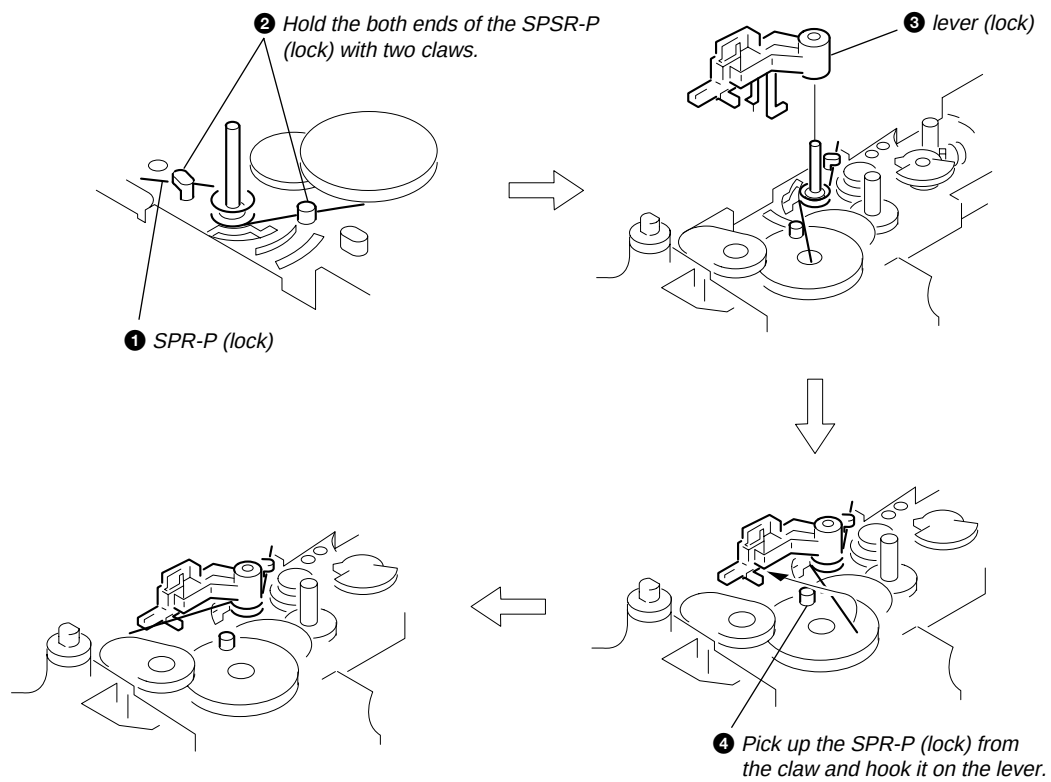
PRECAUTION DURING GEAR (TAKO SECOND) INSTALLATION



1-44. SPR-P (LOCK)



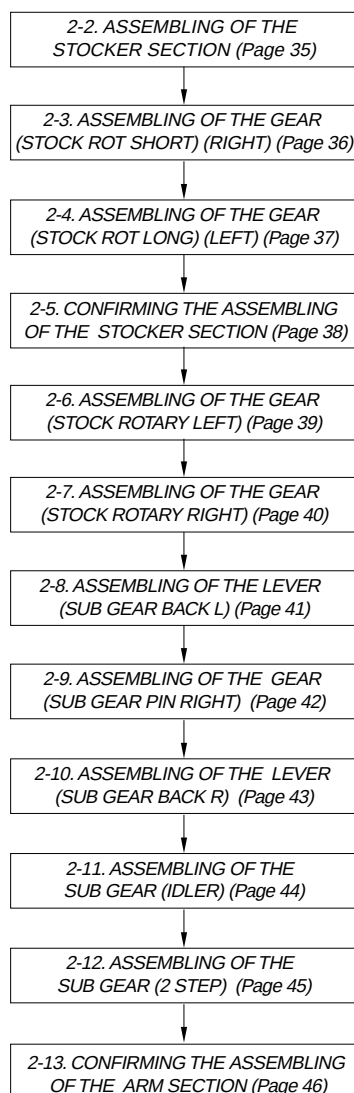
PRECAUTION DURING LEVER INSTALLATION



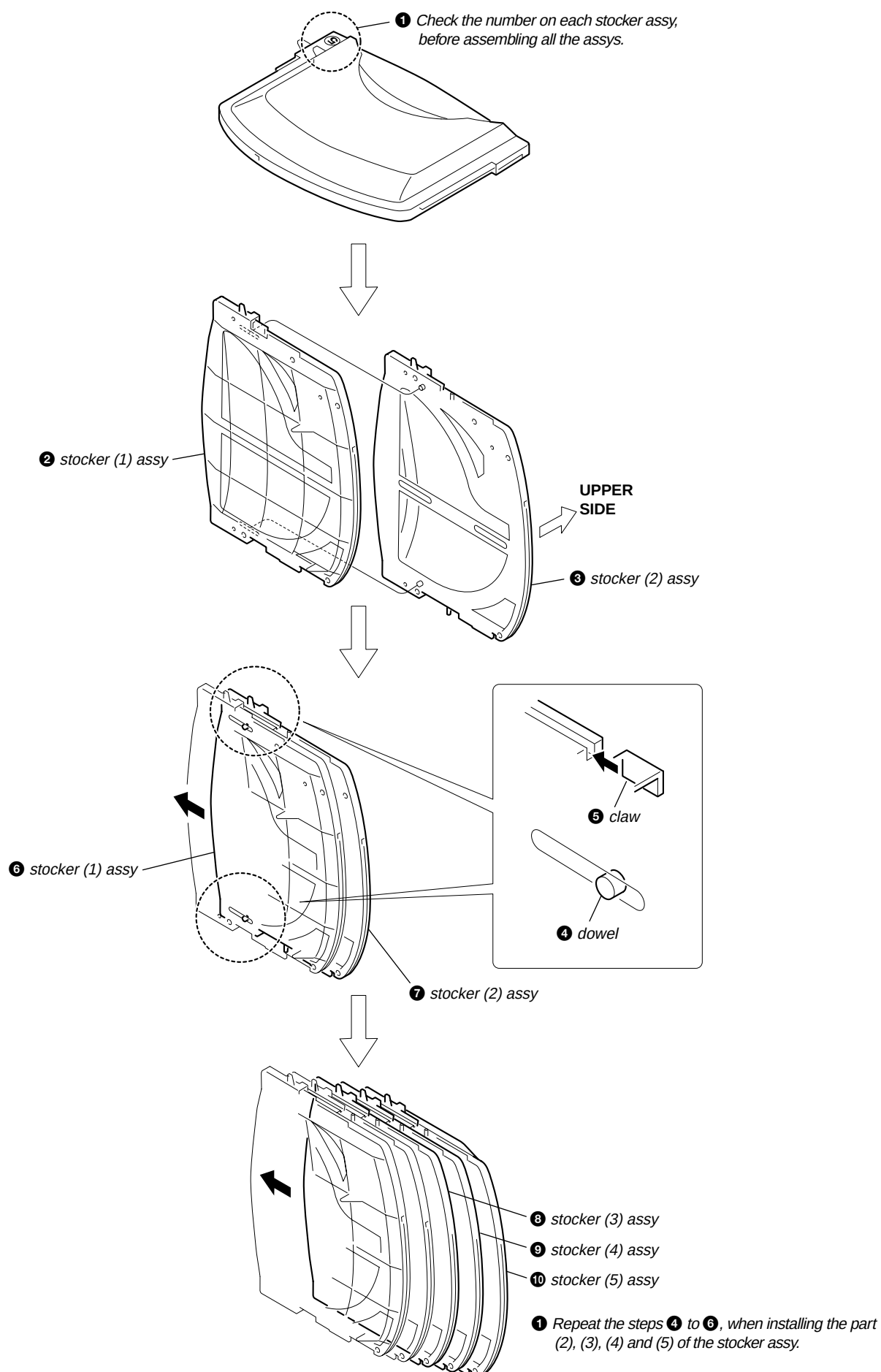
SECTION 2 ASSEMBLY

- This is can be assemble according to the following sequence.

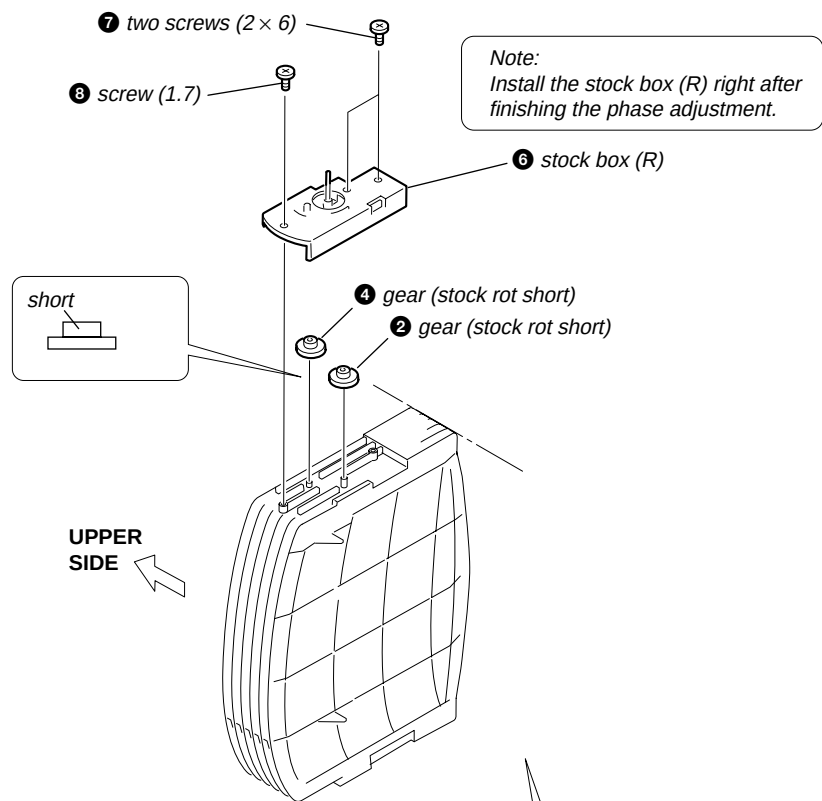
2-1. ASSEMBLY FLOW



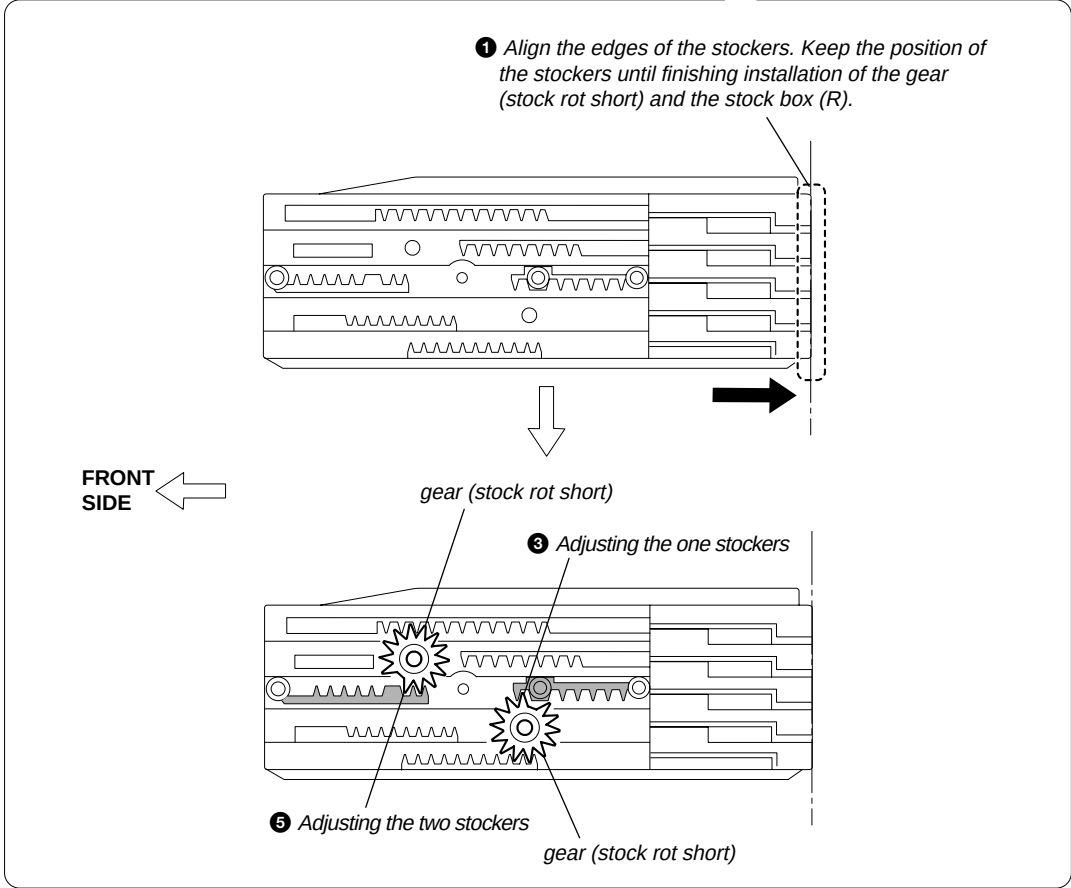
2-2. ASSEMBLING OF THE STOCKER SECTION



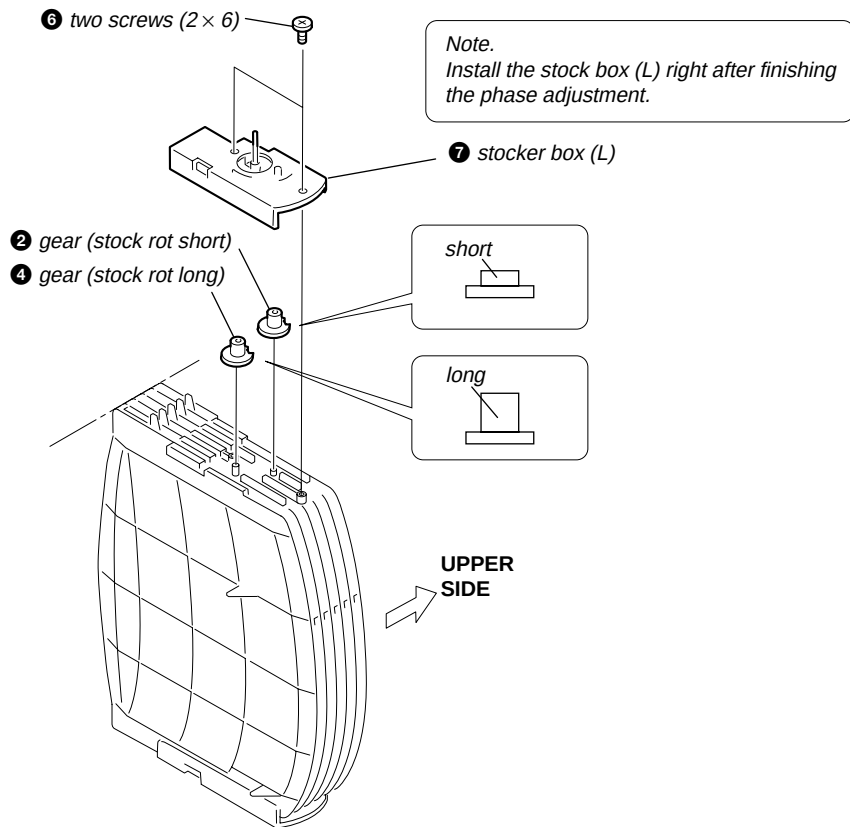
2-3. ASSEMBLING OF THE GEAR (STOCK ROT SHORT) (RIGHT)



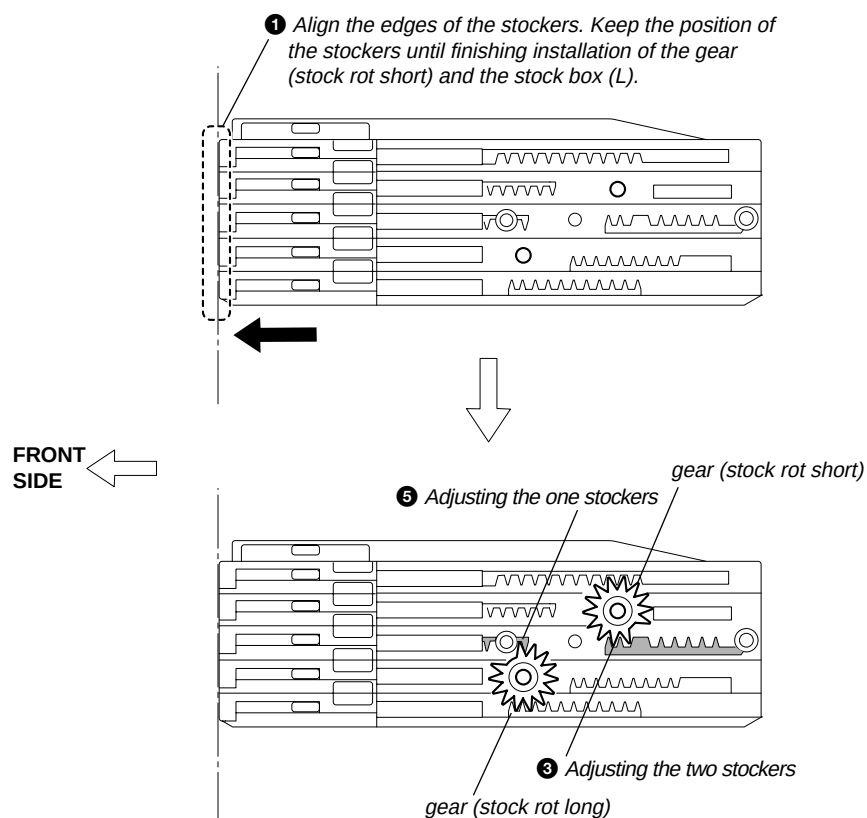
PRECAUTION DURING GEAR (STOCK ROT SHORT) INSTALLATION



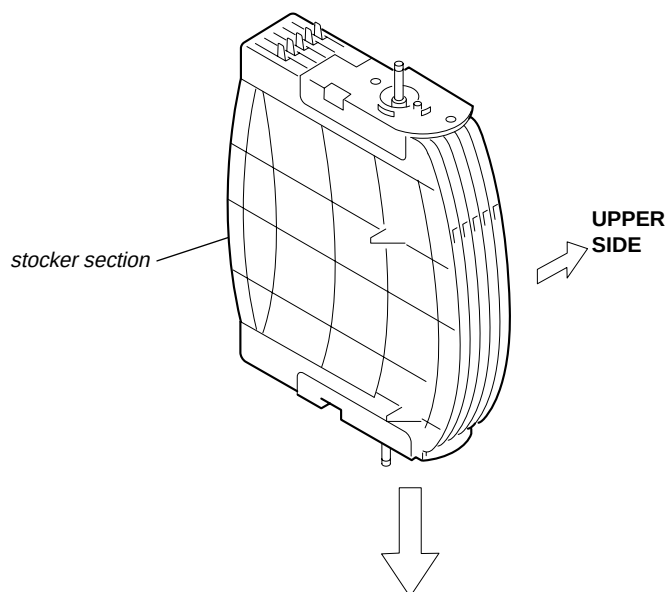
2-4. ASSEMBLING OF THE GEAR (STOCK ROT LONG) (LEFT)



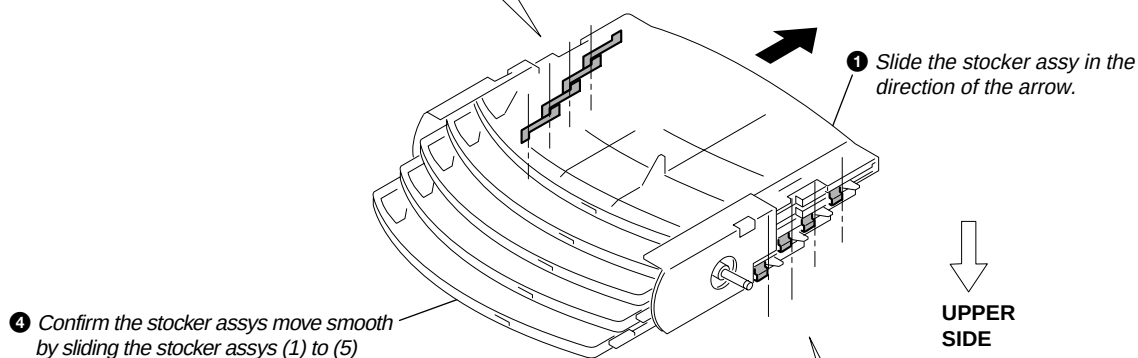
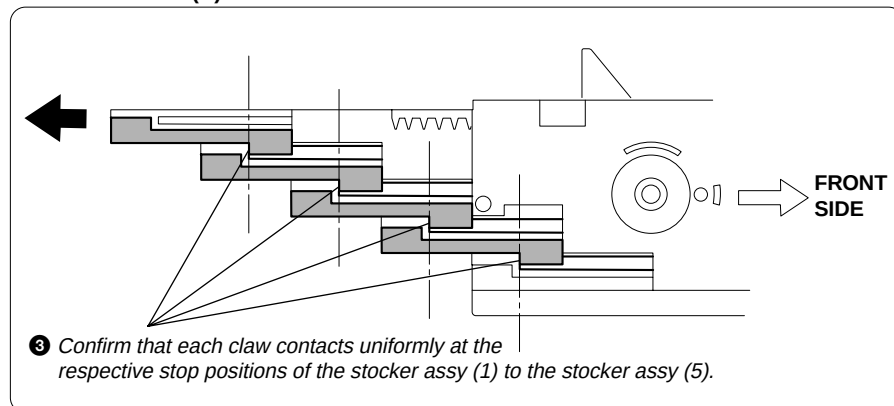
PRECAUTION DURING GEAR (STOCK ROT SHORT, STOCK ROT SHORT LONG) INSTALLATION



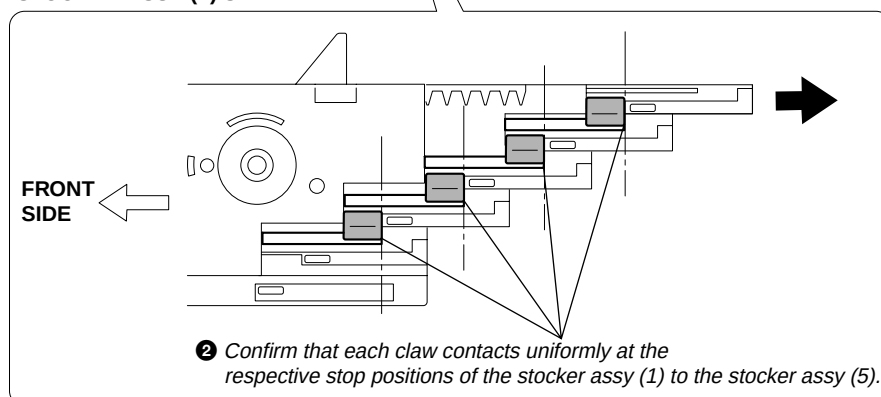
2-5. CONFIRMING THE ASSEMBLING OF THE STOCKER SECTION



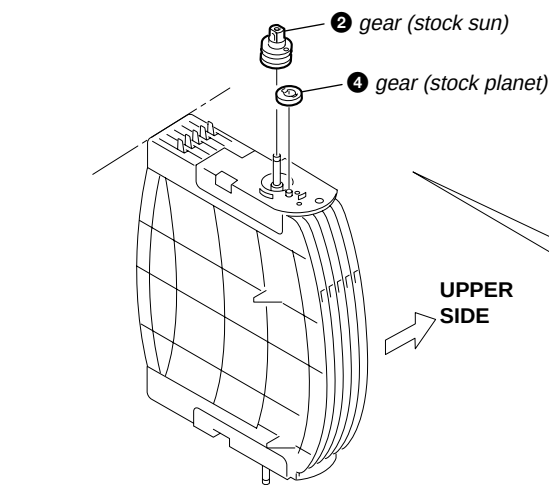
STOCKER ASSY (R) SIDE



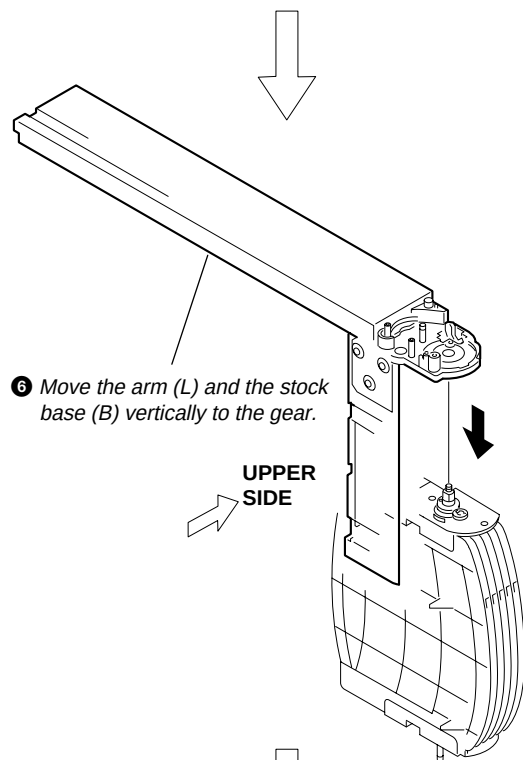
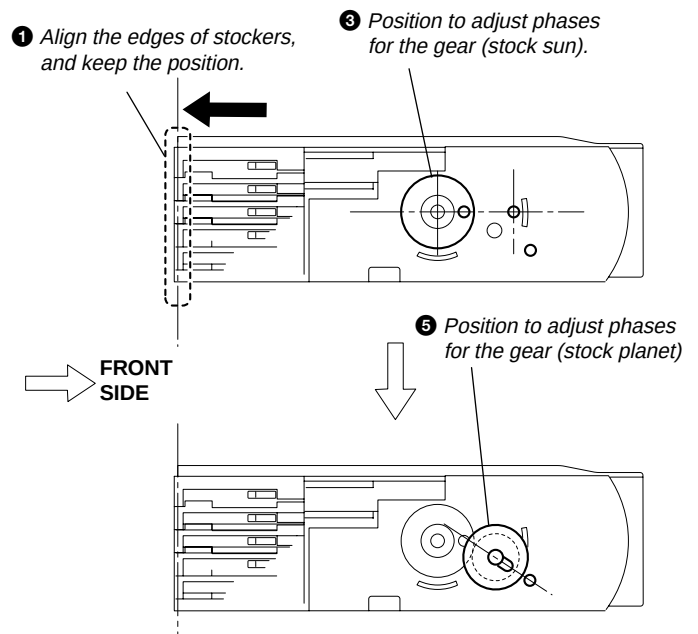
STOCKER ASSY (L) SIDE



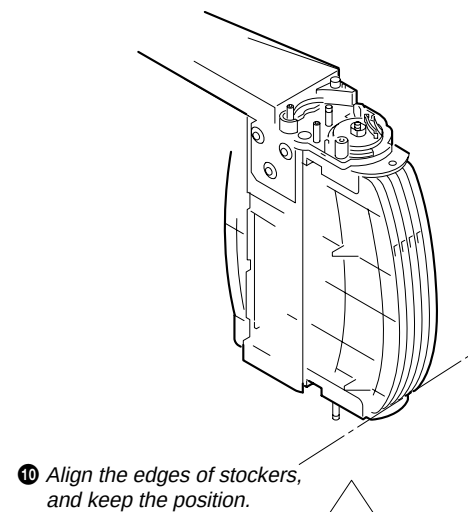
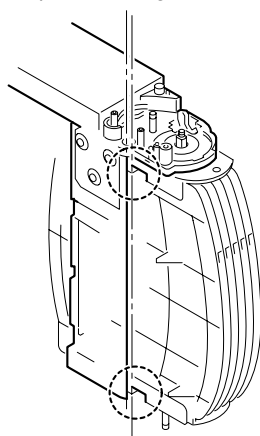
2-6. ASSEMBLING OF THE GEAR (STOCK ROTARY LEFT)



PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION



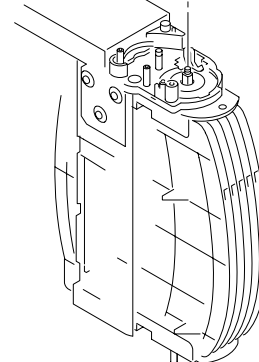
7 Check if the stock base (B) is kept parallel with groove of the stocker.



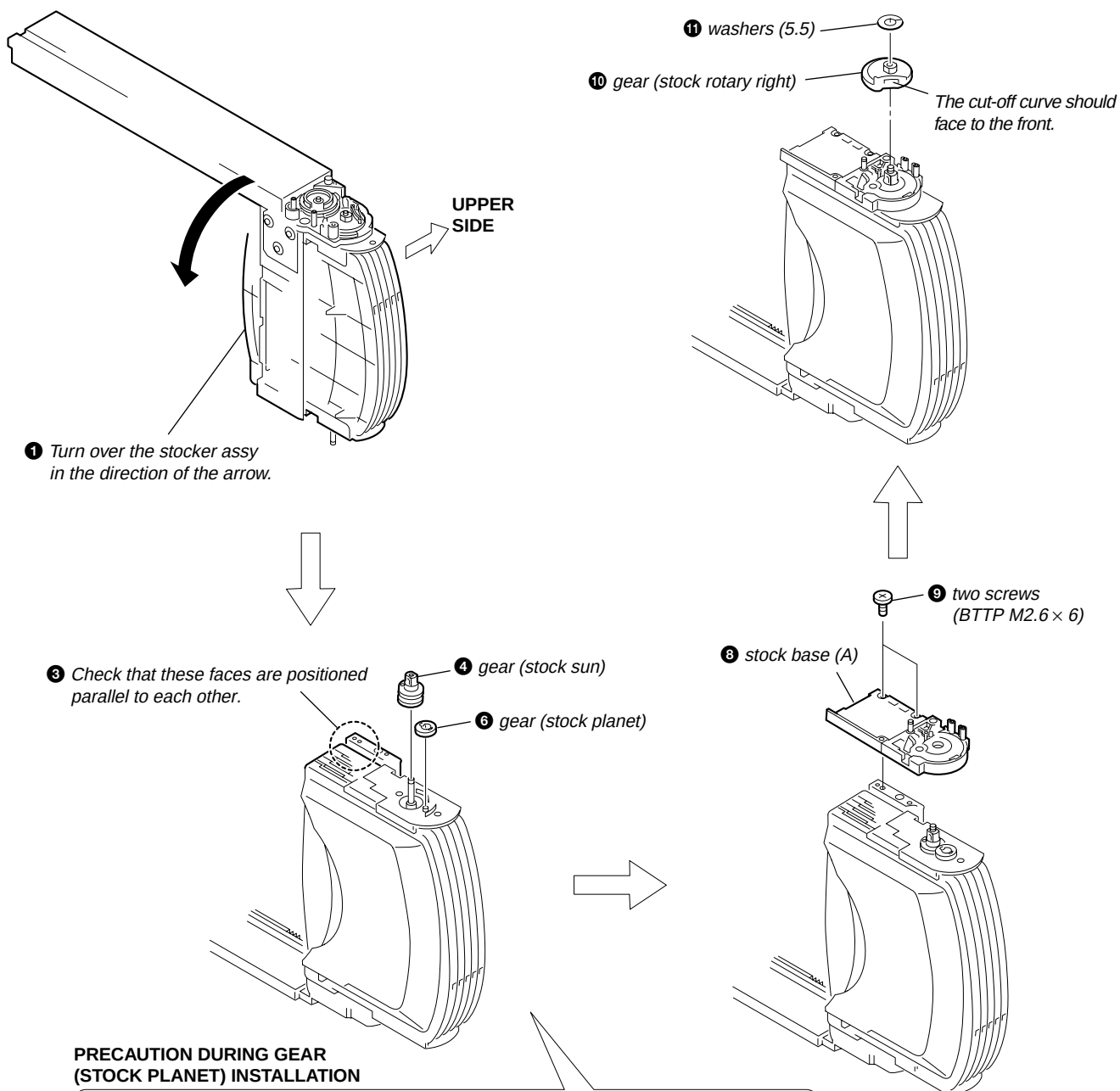
8 gear (stock rotary left)

9 washer (5.5)

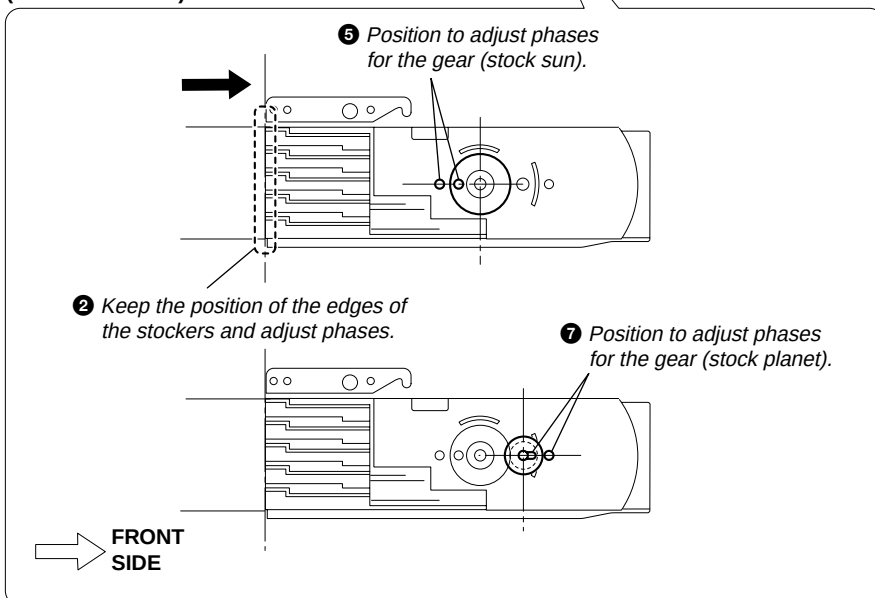
The cut-off curve should face to the front.



2-7. ASSEMBLING OF THE GEAR (STOCK ROTARY RIGHT)

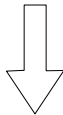
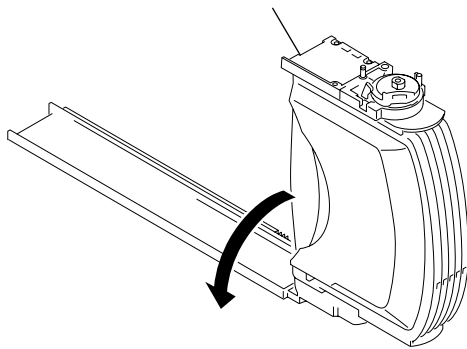


PRECAUTION DURING GEAR (STOCK PLANET) INSTALLATION



2-8. ASSEMBLING OF THE LEVER (SUB GEAR BACK L)

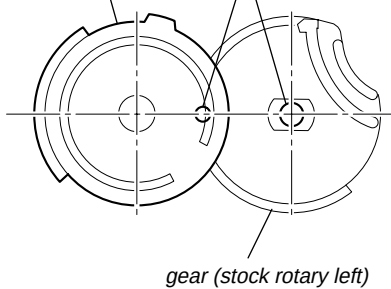
- ① Turn over the stocker assy in the direction of the arrow.



PRECAUTION DURING GEAR (SUB GEAR PIN LEFT) INSTALLATION

gear (sub gear pin left)

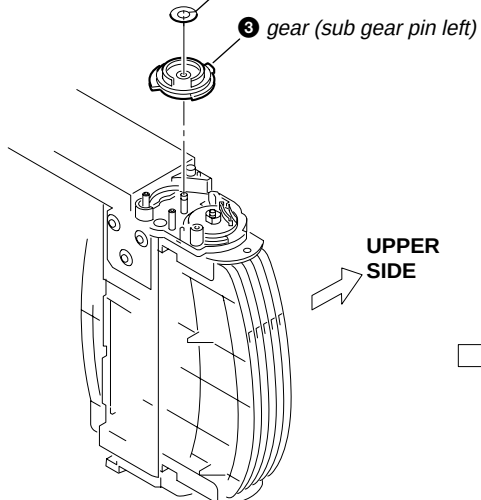
- ② Adjust phases.



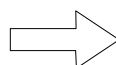
gear (stock rotary left)

- ④ washers (5.5)

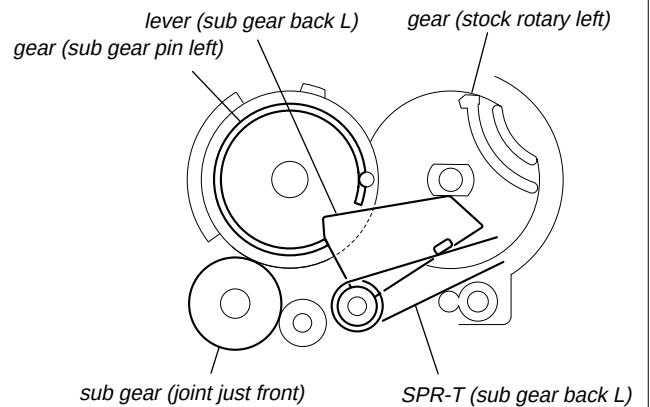
- ③ gear (sub gear pin left)



UPPER
SIDE



PRECAUTION DURING SPR-T (SUB GEAR BACK L) INSTALLATION



- ⑩ screw (M2 × 5)

- ⑪ k tapping screw (2.6 × 8)

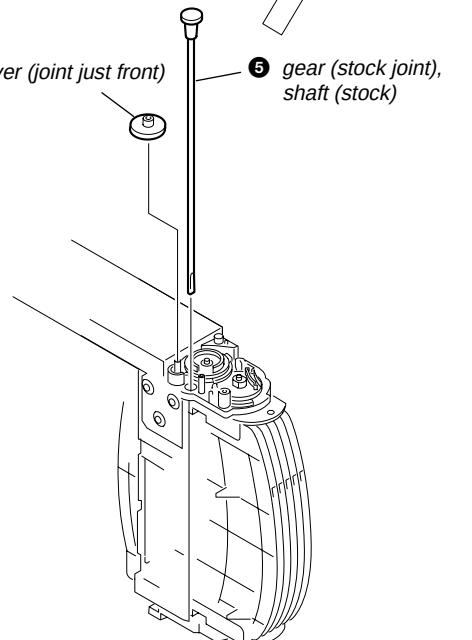
- ⑨ cover (L)

- ⑧ SPR-T (sub gear back L)

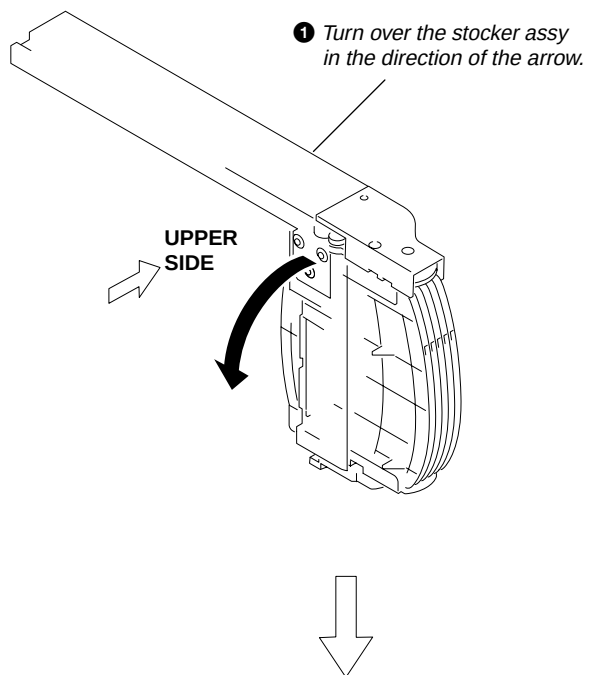
- ⑦ lever (sub gear back L)

- ⑥ lever (joint just front)

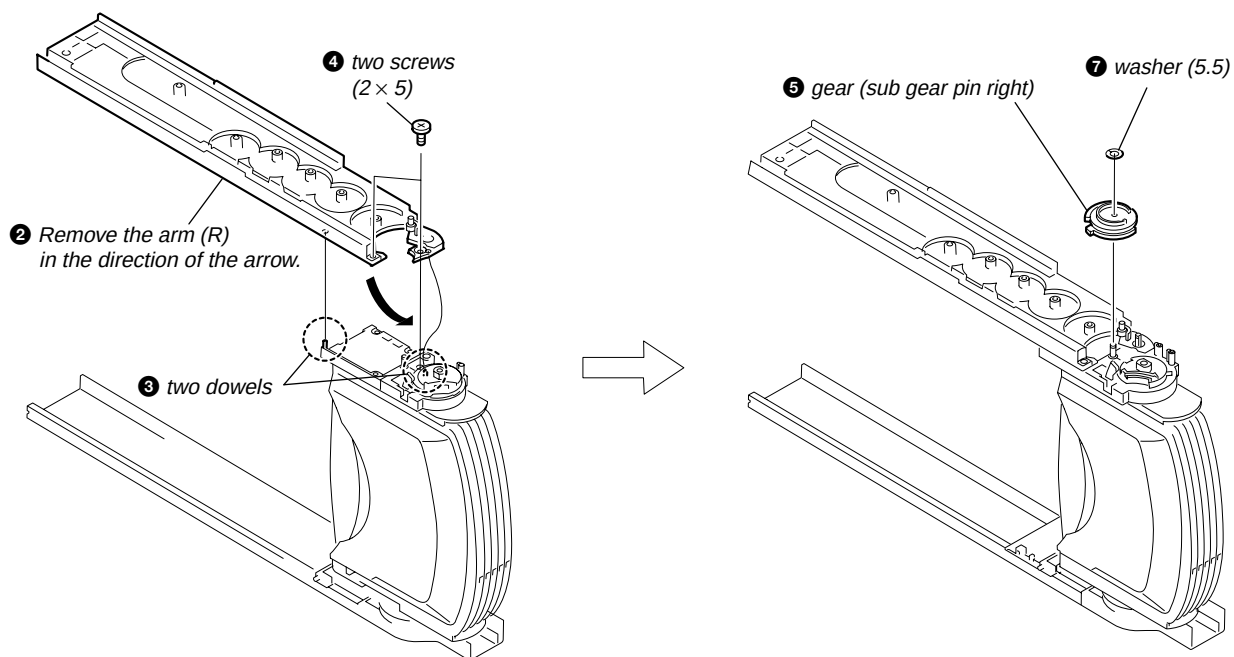
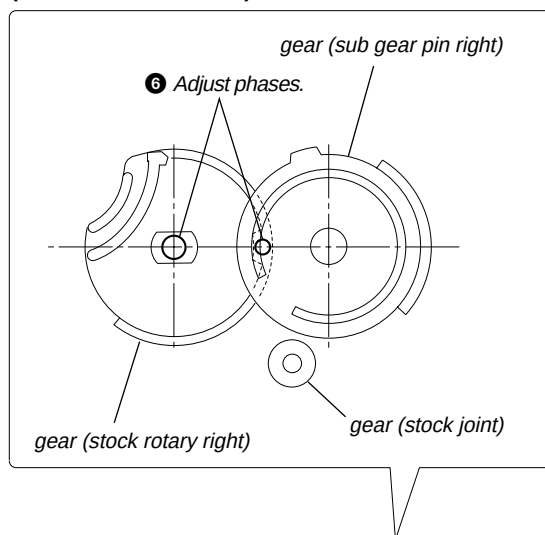
- ⑤ gear (stock joint), shaft (stock)



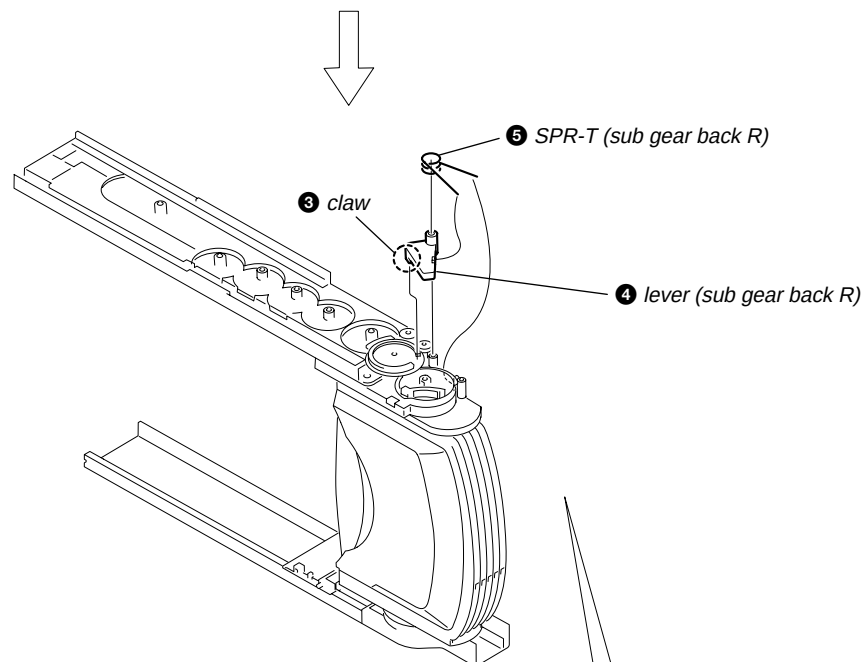
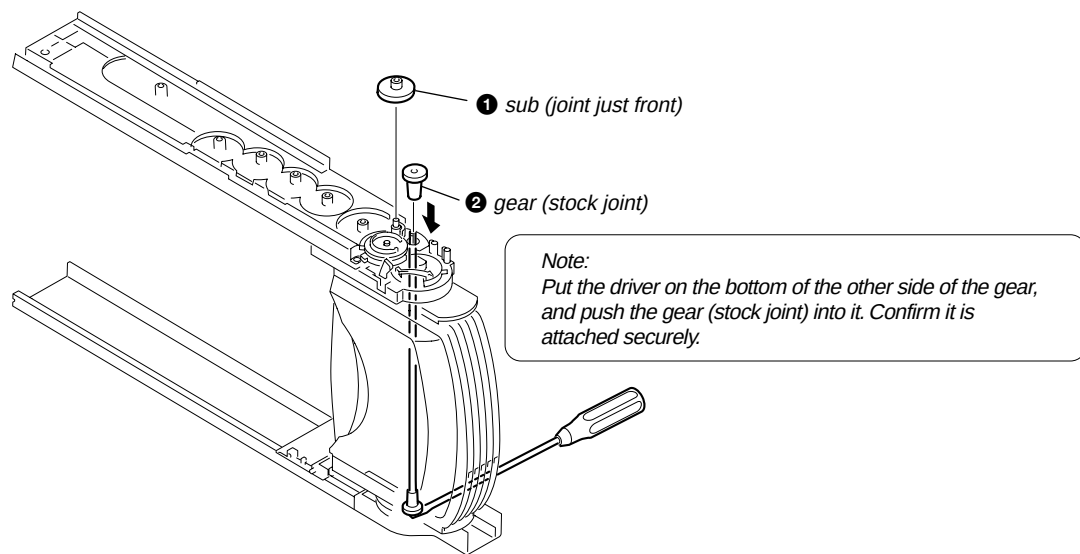
2-9. ASSEMBLING OF THE GEAR (SUB GEAR PIN RIGHT)



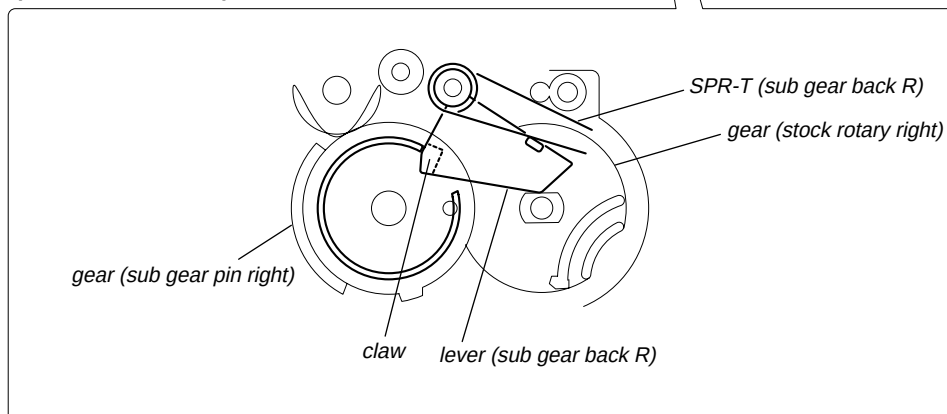
PRECAUTION DURING GEAR (SUB GEAR PIN RIGHT) INSTALLATION



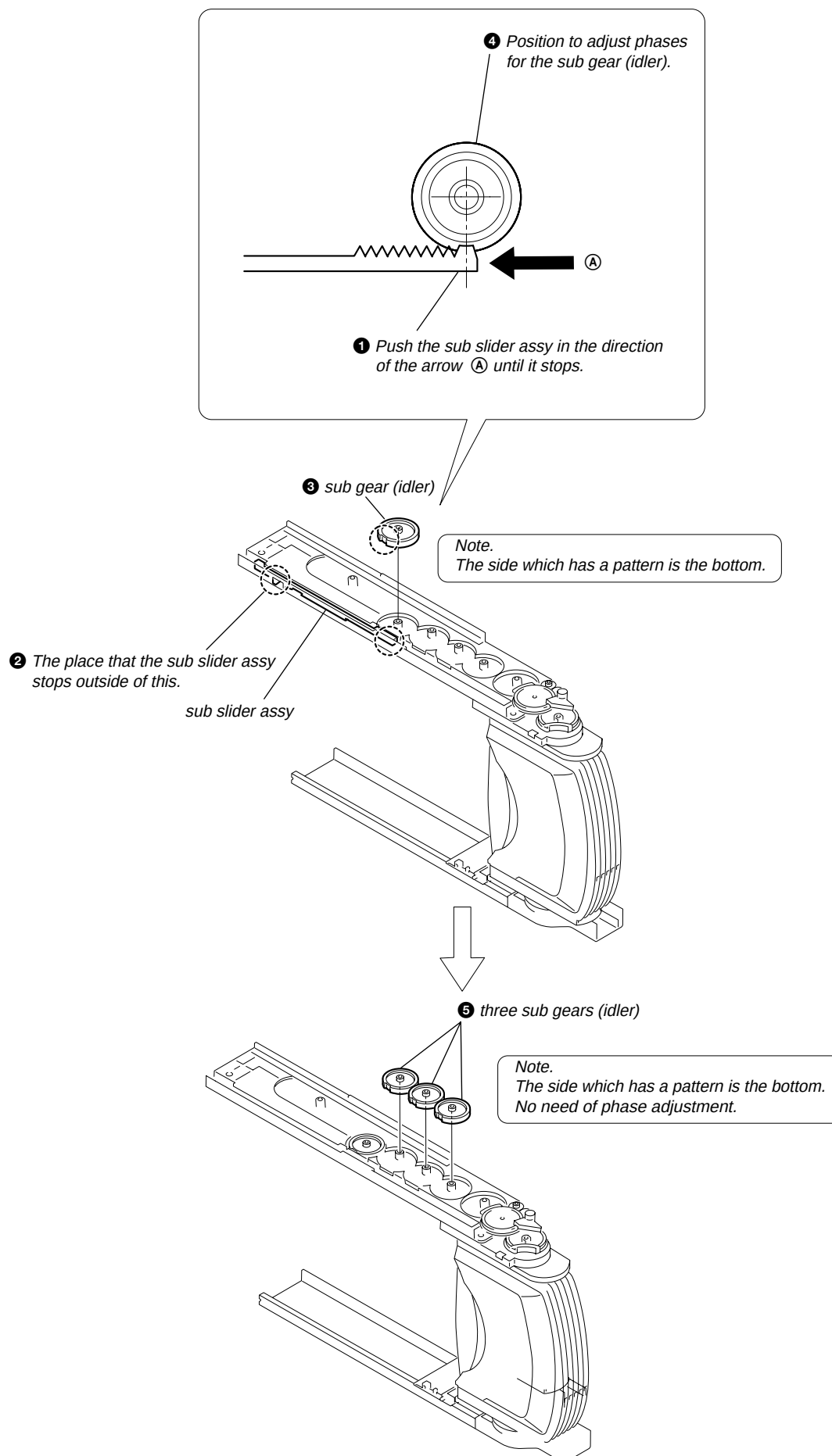
2-10. ASSEMBLING OF THE LEVER (SUB GEAR BACK R)



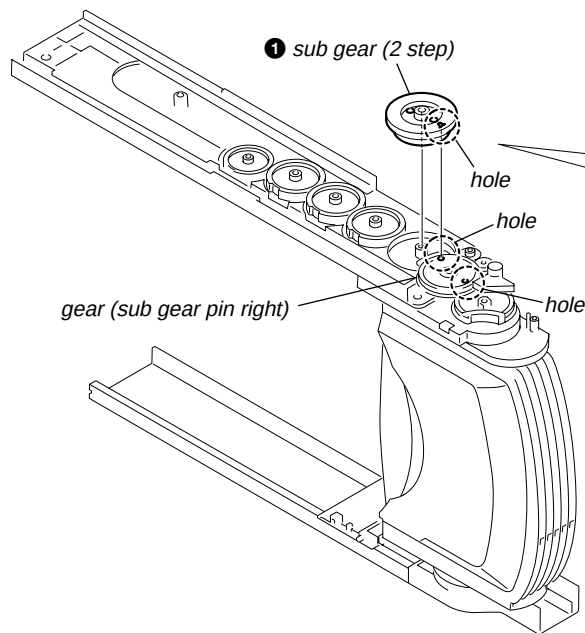
PRECAUTION DURING SPR-T (SUB GEAR BACK R) INSTALLATION



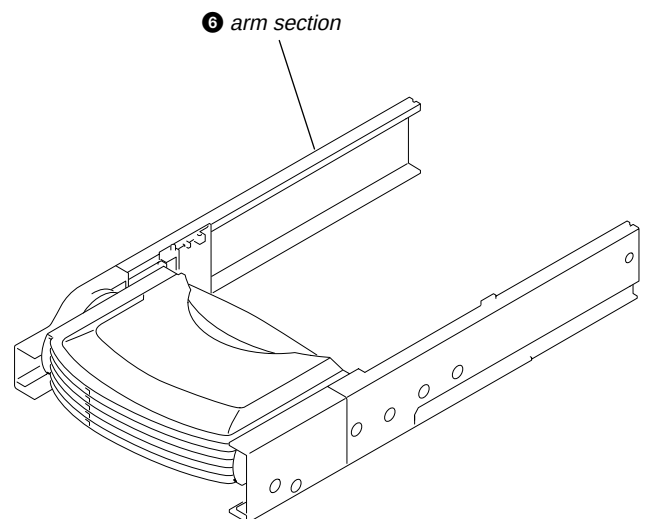
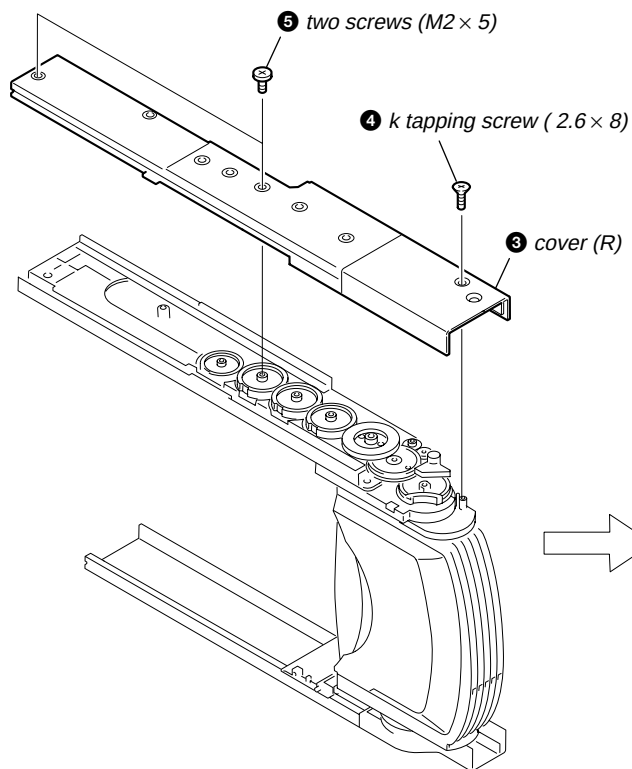
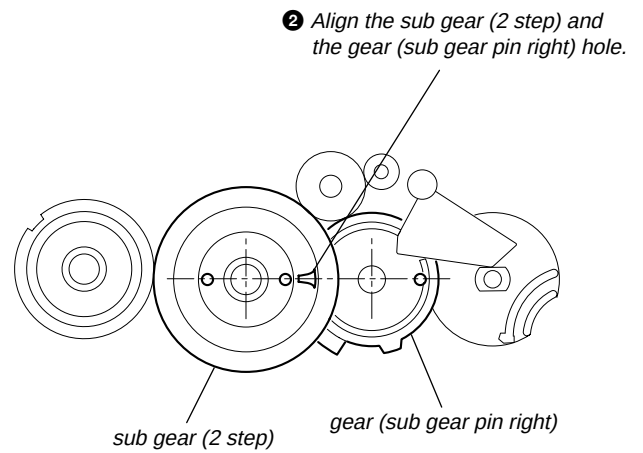
2-11. ASSEMBLING OF THE SUB GEAR (IDLER)



2-12. ASSEMBLING OF THE SUB GEAR (2 STEP)



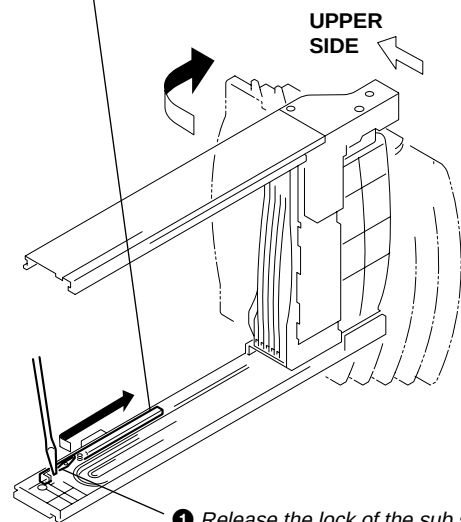
PRECAUTION DURING SUB GEAR (2 STEP) INSTALLATION



2-13. CONFIRMING THE ASSEMBLING OF THE ARM SECTION

② Check point 1:

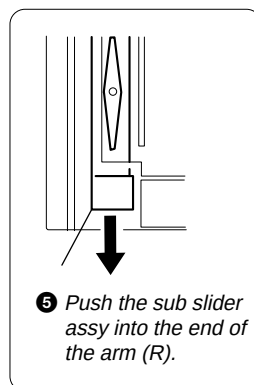
The smooth movement of this part when sliding.



① Release the lock of the sub slider assy and slide it in the direction of the arrow.

Note.

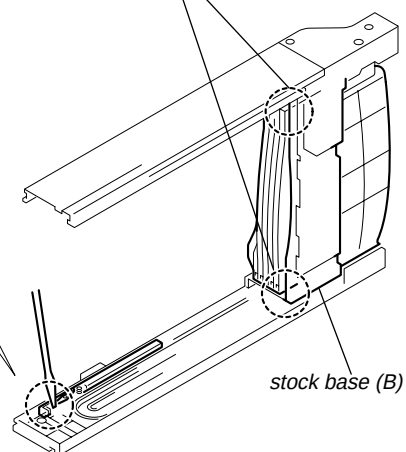
If the two parts of the stopper do not touch the stock base (B) when the sub slider assy is pushed to the end, the phases are not correctly adjusted. Reassemble the assy.



⑤ Push the sub slider assy into the end of the arm (R).

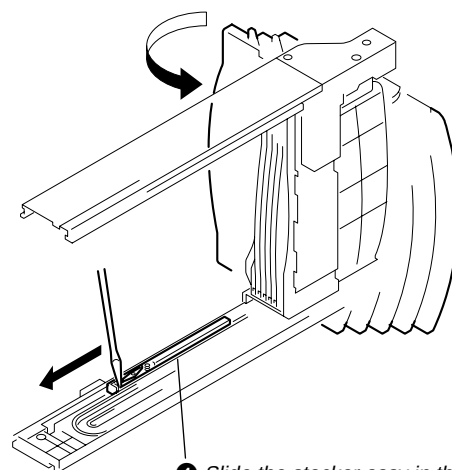
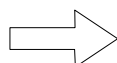
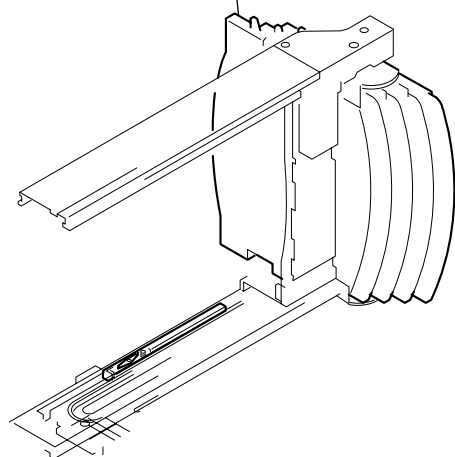
⑥ Check point 3:

Two parts of the stopper touch the stock base (B).



③ Check point 2:

All the stocker assy is standing.



④ Slide the stocker assy in the direction of the arrow.

SECTION 3 TEST MODE

Note 1: Regarding the notification symbol “R”

Because the number of the operating buttons of this product are limited, some operations require use of the operating buttons of the remote commander. When a specific operation requires use of the operating buttons of the remote commander, “R” is added to the specific operating procedure in this manual. Example **MENU/NO “R”** The **MENU/NO** button of remote commander.

Note 2: Incorrect operations may be performed if the test mode is not entered properly.

In this case, press the **I/O** button to turn the power off, and retry to enter the test mode.

[COMMON TEST MODE]

- This mode is used to check operations of Amplifier.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press three keys of **DSGX** and **PLAY MODE/TUNING MODE** and **ENTER** simultaneously.
- When the COMMON test mode is activated, “PLAY SLEEP” blinks on the fluorescent indicator tube.
- Each time the **EQ “R”** button on the remote commander, the message “TONE MAX”, “TONE MIN” or “TONE FLAT” is displayed in this order.
Turn the **VOLUME** knob counterclockwise, “VOL MIN” is displayed on the liquid crystal display. Turn the **VOLUME** knob clockwise, “VOL MAX” is displayed on the fluorescent indicator tube.
- To release this mode, press the **I/O** key.

[PANEL TEST MODE]

- This mode is used to check the fluorescent indicator tube, LED, model, destination, software version and key.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press three keys of **DSGX**, **ILLUMINATION** and **ENTER** simultaneously.
- Fluorescent indicator tube is all turned on and each LED of **CD ▷**, **TUNER/BAND**, **TAPE ▷**, **DSGX** and **STANDBY** blinks every 0.5 seconds.
- When you want to enter the model, destination and version display mode, press the **PLAY MODE/TUNING MODE** key. The model and destination are displayed alternately on the fluorescent indicator tube.
- Each time **PLAY MODE/TUNING MODE** key is pressed, the display changes starting from MC version, GC version, CD version, CDD version, CDMA version, CDMB version, BDA version, BDB version, ST version, TA version, TM version, and TC version this order, and returns to the MC version display on the fluorescent indicator tube.
- When **FUNCTION** key is pressed while the version numbers are being displayed except model and destination, year, month and day of the software creation display. When **FUNCTION** key is pressed again, the display returns to the software version display. In this state, each time **PLAY MODE/TUNING MODE** key is pressed, the year, month and day of creation of the software versions are displayed on the fluorescent indicator tube in the same order of version display.
- Press the **CD SYNC** key, the key check mode is activated.
- In the key check mode, the fluorescent indicator tube displays “K 0 J0 V0”.
- Each time a button is pressed, “K” value increases. However, once a button is pressed, it is no longer taken into account. All keys are pressed, display becomes “K24”.
- “V” value increases 1, 2, 3 ... if turn the **VOLUME** knob clockwise, or it decreases 0, 9, 8 ... if turn the knob counterclockwise

- To release this mode, press three keys in the same manner as step 2, or disconnect the power cord.

[COLD RESET]

- The cold reset clears all data including preset data stored in the RAM to initial conditions. Execute this mode when returning the set to the customer.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press three keys of **I/O**, **ILLUMINATION** and **■** simultaneously.
- The fluorescent indicator tube becomes blank instantaneously, and the set is reset.

[SHIP MODE (NO MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press the **FUNCTION** key to select “CD”.
- Press three keys of **ILLUMINATION**, **■** and **DISC 1** simultaneously.
- After the “STANDBY” display blinks, “LOCK” is displayed on the fluorescent indicator tube, and the ship mode is set.

[SHIP MODE (MEMORY CLEAR)]

- This mode moves the optical pick-up to the position durable to vibration. Use this mode when returning the set to the customer after repair.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press the **FUNCTION** key to select “CD”.
- Press three keys of **DSGX**, **DISC 1** and **ILLUMINATION** simultaneously.
- After the “STANDBY” display blinks, “LOCK” is displayed on the fluorescent indicator tube, and the ship mode is set.

[CD SLOT LOCK MODE]

- This mode is used to unable to take sample disc out of disc slot in the shop.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press the **FUNCTION** key to select “CD”.
- While pressing the **▲** key, press the **■** key for 5 seconds.
- The message “LOCKED” is displayed on the fluorescent indicator tube and the disc slot is locked. (Even if pressing the **▲** key, the message “LOCKED” is displayed on the fluorescent indicator tube and the disc slot is locked)
- To release from this mode, pressing the **▲** key, press the **■** key for 5 seconds.
- The message “UNLOCKED” is displayed on the fluorescent indicator tube and the disc slot is unlocked.

[CD SERVICE MODE]

- This mode can run the CD sled motor freely. Use this mode, for instance, when cleaning the optical pick-up.

Procedure:

- Press the **I/O** key to turn the power ON.
- Press the **FUNCTION** key to select “CD”.
- Press three keys of **DSGX**, **DISC 2** and **ILLUMINATION** simultaneously.
- Press the **▷▷▷** key to move the optical pick-up to outside track, or press the **◁◁◁** key to inside track.

5. Press the  key, "LD OFF" is displayed and laser diode is turned off. Each time  key is pressed, laser diode ON/OFF switch is performed.
6. To release this mode, press the  key.

[CD ERROR CODE DISPLAY MODE]

This mode can be used for error code display of CD section.

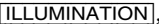
Procedure:

1. Press the  button to turn the power on.
2. Press the  key to select "CD".
3. Press three keys of  ,  and  simultaneously.
4. When this mode is activated, mechanism deck error code is displayed on the fluorescent indicator tube.
5. Press the  +  keys to changed over between optical pick-up error code display mode and mechanism deck error code mode.
6. Turn the  <<< >>>  keys to change over display of error history.

[CD SERVO TEST MODE]

- This mode used to check operation of optical pick-up.

Procedure:

1. Press the  key to turn the power ON.
2. Press the  key to select "CD".
3. Press three keys of  ,  and  simultaneously.
4. To release this mode, press the  key.

[CD POWER MANAGE]

This mode is for switch the CD power supply on/off. Even if this state pulls out AC plug, it is held.

Procedure:

1. Press the  button to turn the power on.
2. Press the  key to select "CD".
3. Press the  button again to turn the power off (standby).
4. While pressing the  button, press the  button.
5. It turns power on and display "CD POWER", then display "ON" or "OFF".

SECTION 4 MECHANICAL ADJUSTMENTS

• Precaution

- Clean the following parts with a denatured-alcohol-moistened swab :

record/playback head	pinch roller
erase head	rubber belts
capstan	idlers
- Demagnetize the record/playback head with a head demagnetizer. (Do not bring the head magnetizer close to the erase head.)
- Do not use a magnetized screwdriver for the adjustments.
- After the adjustments, apply suitable locking compound to the parts adjusted.
- The adjustments should be performed with the rated power supply voltage unless otherwise noted.

• Torque Measurement

Mode	Torque meter	Meter reading
FWD	CQ-102C	2.95 – 6.86 mN • m (30 to 70 g • cm) (0.42 – 0.97 oz • inch)
FWD back tension	CQ-102C	0.15 – 5.39 mN • m (1.5 to 5.5 g • cm) (0.021 – 0.076 oz • inch)
FF	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)
REW	CQ-201B	more than 5.89 mN • m (more than 60 g • cm) (more than 0.83 oz • inch)

• Tape Tension Measurement

Mode	Tension Meter	Meter Reading
FWD	CQ-403A	more than 100 g (more than 3.53 oz)

SECTION 5 ELECTRICAL ADJUSTMENTS

DECK SECTION

0 dB=0.775 V

- Demagnetize the record/playback head with a head demagnetizer.
- Do not use a magnetized screwdriver for the adjustments.

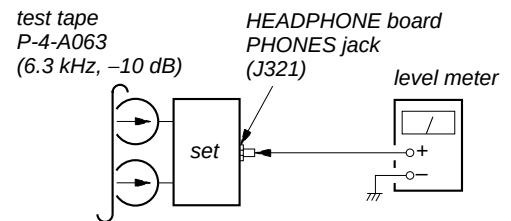
• Test Tape

Tape	Signal	Used for
P-4-A063	6.3 kHz, -10 dB	Azimuth Adjustment

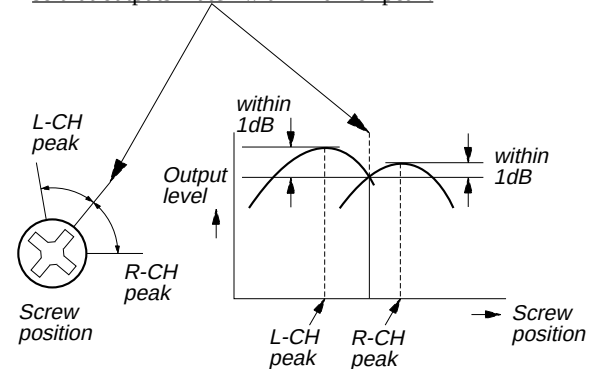
RECORD/PLAYBACK HEAD AZIMUTH ADJUSTMENT

Procedure:

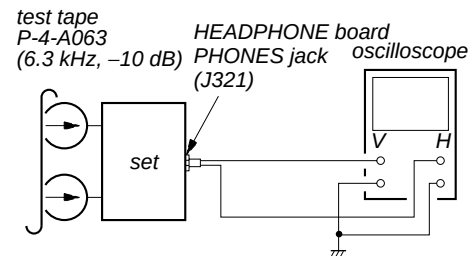
- Mode: Playback



- Turn the adjustment screw and check output peaks. If the peaks do not match for L-CH and R-CH, turn the adjustment screw so that outputs match within 1dB of peak.



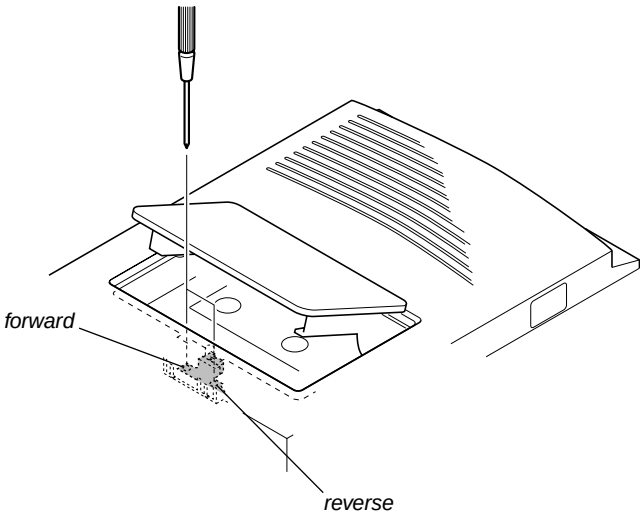
- Mode: Playback



waveform of oscilloscope				
in phase	45°	90°	135°	180°
good			wrong	

- After the adjustments, apply suitable locking compound to the parts adjusted.

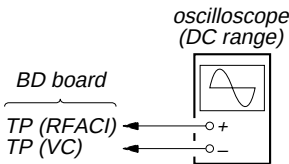
Adjustment Location: Record/Playback/Erase Head



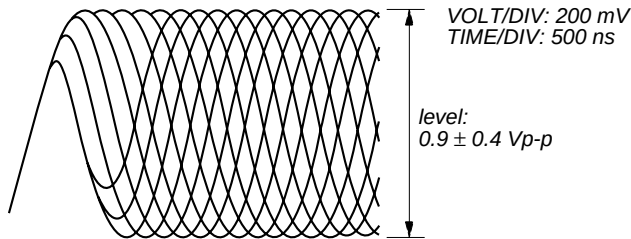
CD SECTION

- Note:**
- 1. CD Block is basically constructed to operate without adjustment.
 - 2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
 - 3. Use an oscilloscope with more than 10 MΩ impedance.
 - 4. Clean the object lens by an applicator with neutral detergent when the signal level is low than specified value with the following checks.
 - 5. Check the focus bias check when optical pick-up block is replaced.

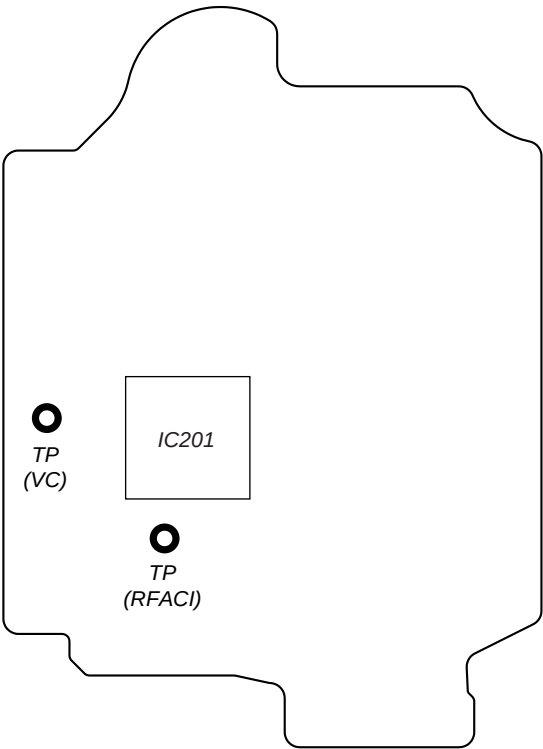
FOCUS BIAS CHECK



- Procedure :**
- 1. Connect oscilloscope to TP (RFACI) and TP (VC) on the BD board.
 - 2. Press the button to turn the power ON, and press the (CD) button to open the CD disc tray.
 - 3. Set disc (YEDS-18) on the tray and press the button to playback.
 - 4. Confirm that oscilloscope waveform is as shown in the figure below. (eye pattern)
A good eye pattern means that the diamond shape (◇) in the center of the waveform can be clearly distinguished.

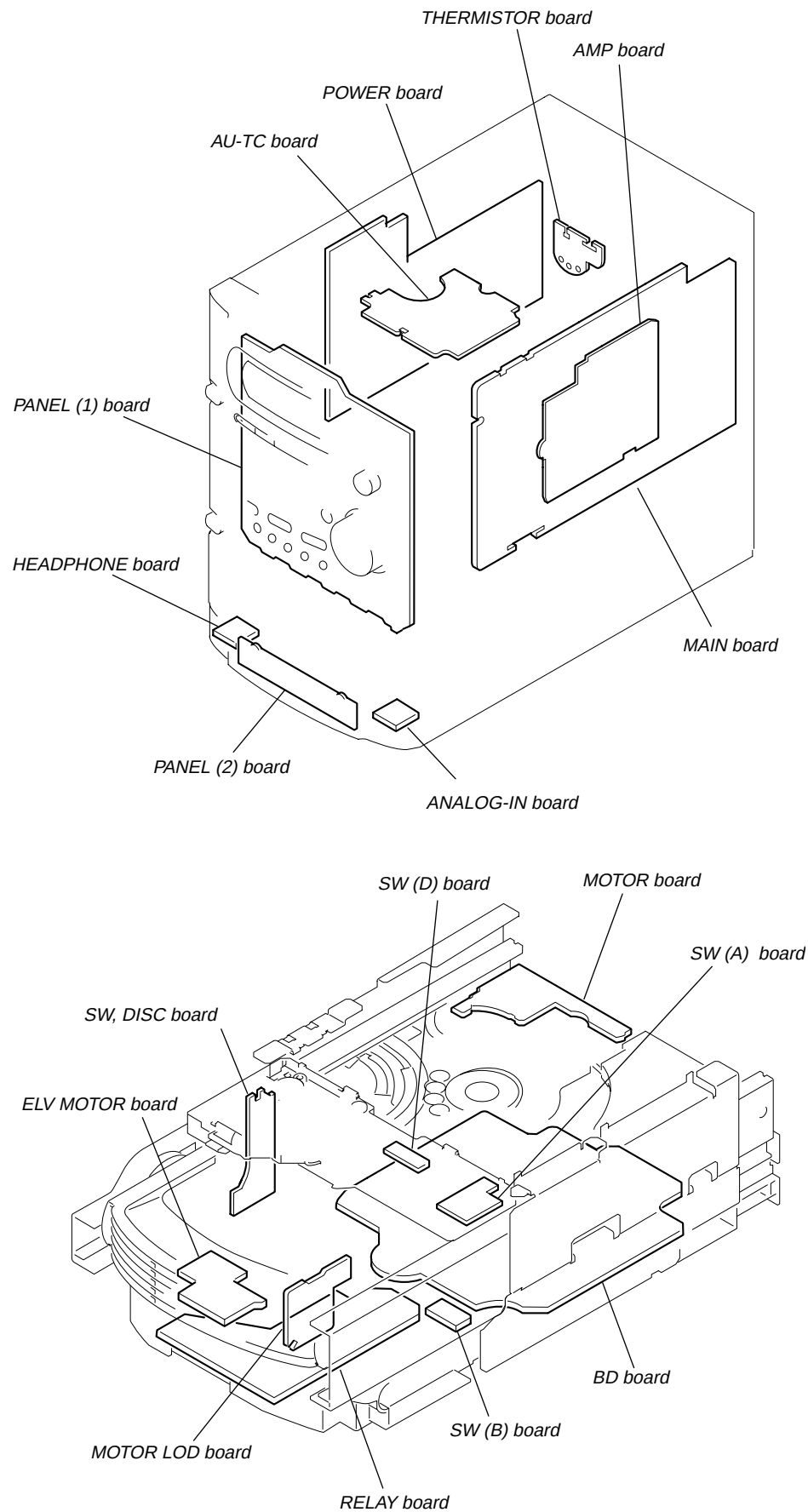


Checking Location:
– BD Board (Conductor Side) –



SECTION 6 DIAGRAMS

• Circuit Boards Location



THIS NOTE IS COMMON FOR PRINTED WIRING BOARDS AND SCHEMATIC DIAGRAMS.
(In addition to this, the necessary note is printed in each block.)

For Schematic Diagrams.

Note:

- All capacitors are in μF unless otherwise noted. (p: pF)
50 WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $\frac{1}{4}\text{ W}$ or less unless otherwise specified.
- $\triangle$: internal component.
-  : nonflammable resistor.
-  : fusible resistor.
-  : panel designation.

Note:

The components identified by mark $\triangle$ or dotted line with mark $\triangle$ are critical for safety.
 Replace only with part number specified.

Note:

Les composants identifiés par une marque $\triangle$ sont critiques pour la sécurité.
 Ne les remplacer que par une pièce portant le numéro spécifié.

-  : B+ Line.
-  : B- Line.
- Voltages and waveforms are dc with respect to ground under no-signal (detuned) conditions.
 - BD Board/MOTOR Section –
No mark: CD PLAY
 - AUDIO Section –
No mark: TAPE PLAY
 - MAIN Board –
No mark: FM
 - () : CD PLAY
 - [] : TAPE PLAY
 - Other Section –
No mark: FM
 - * : Impossible to measure
- Voltages are taken with a VOM (Input impedance 10 M Ω).
Voltage variations may be noted due to normal production tolerances.
- Waveforms are taken with an oscilloscope.
Voltage variations may be noted due to normal production tolerances.
- Circled numbers refer to waveforms.
- Signal path.
 -  : TUNER
 -  : CD
 -  : AUDIO
 -  : PB (TAPE)
 -  : REC (TAPE)
 -  : DIGITAL OUT (CD)
 -  : ANALOG IN
- Abbreviation
 - CND : Canadian model
 - CET : East European and Russian model

For Printed Wiring Boards.

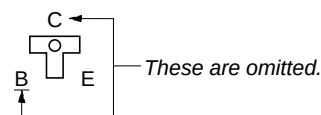
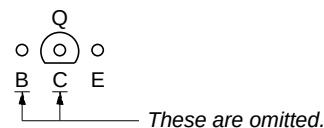
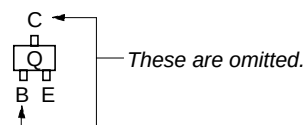
Note:

-  : parts extracted from the component side.
-  : parts extracted from the conductor side.
- $\triangle$: internal component.
-  : Pattern from the side which enables seeing.

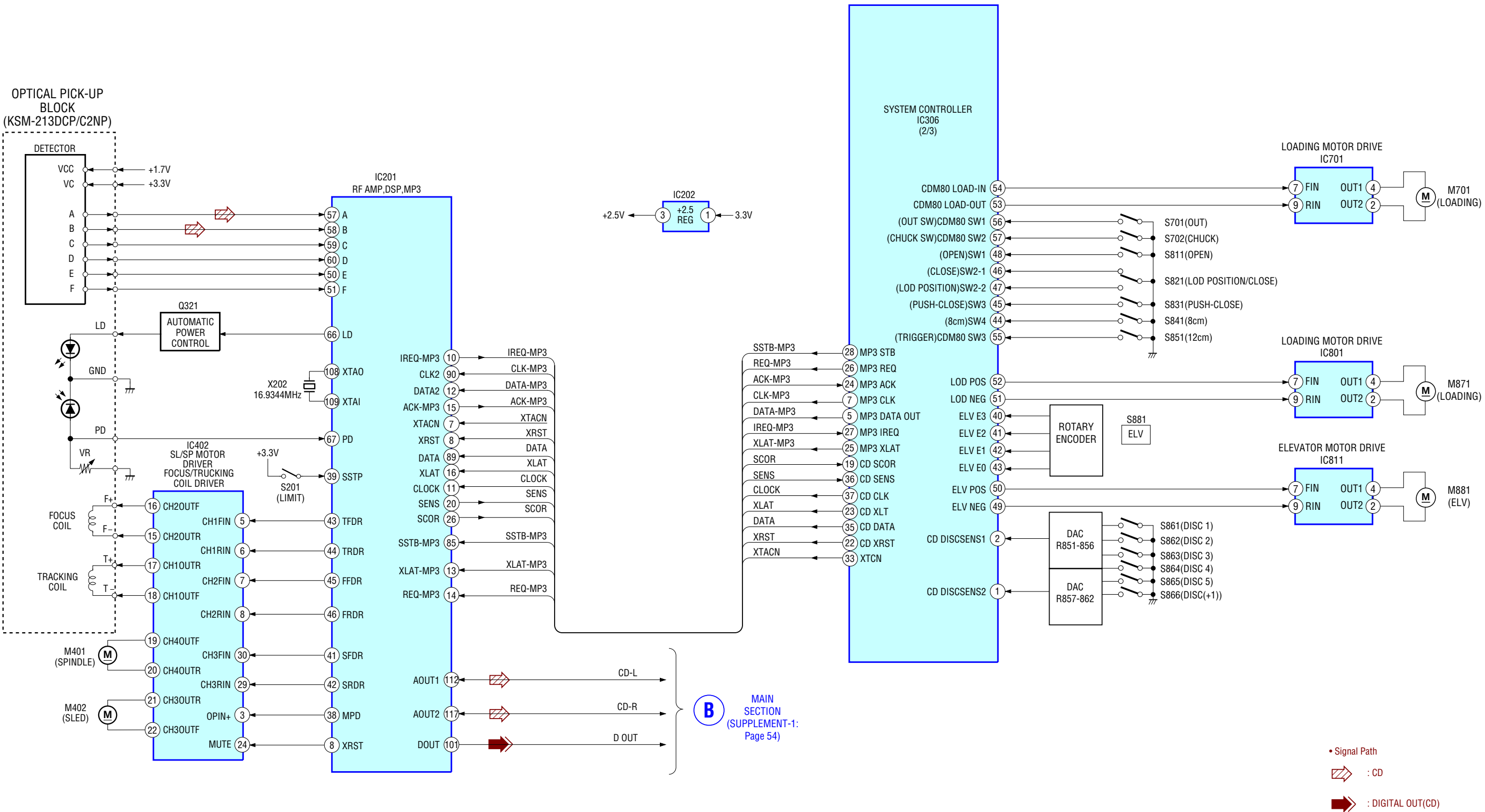
Caution:

Pattern face side: Parts on the pattern face side seen from (Conductor Side) the pattern face are indicated.
 Parts face side: Parts on the parts face side seen from (Component Side) the parts face are indicated.

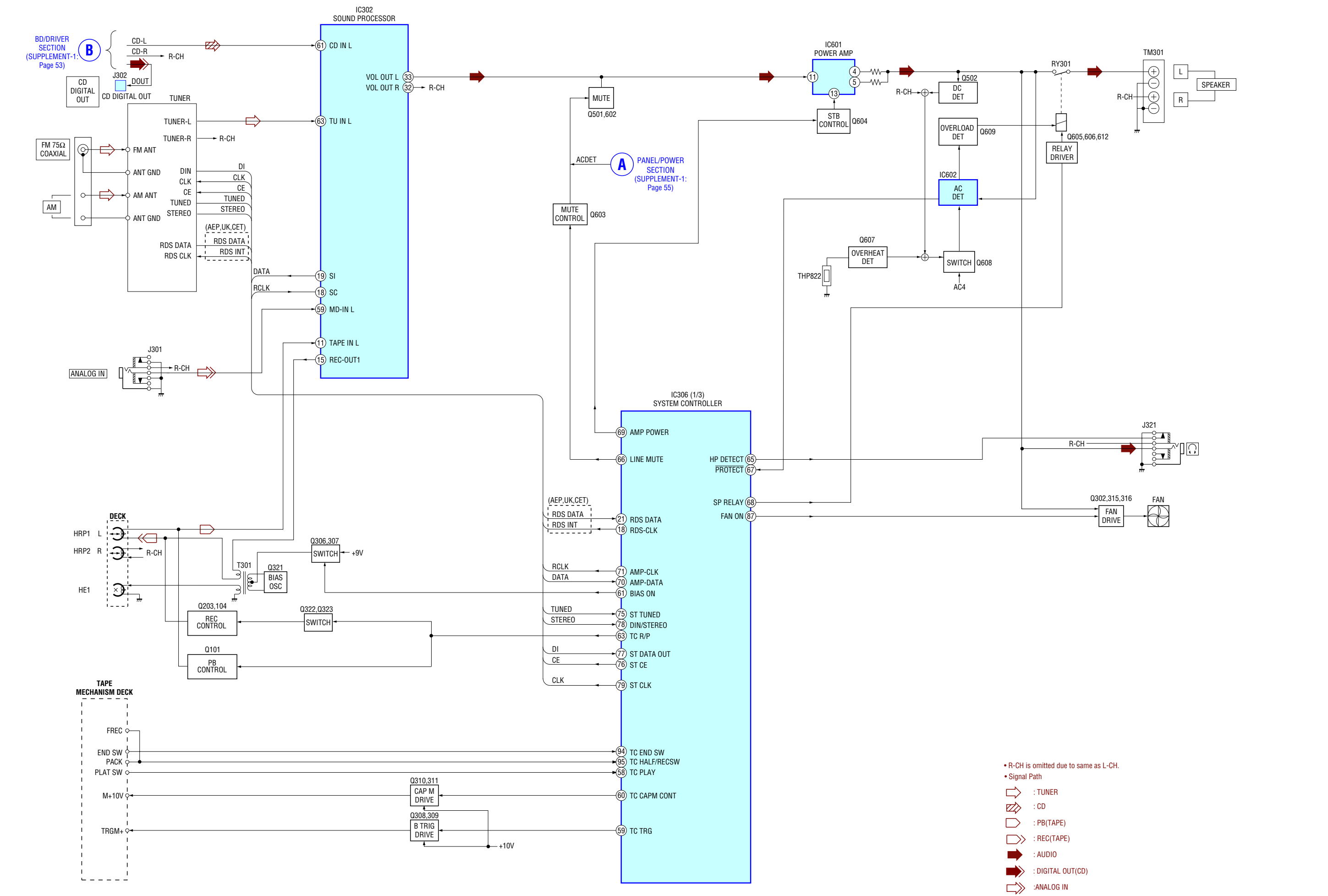
- Indication of transistor.



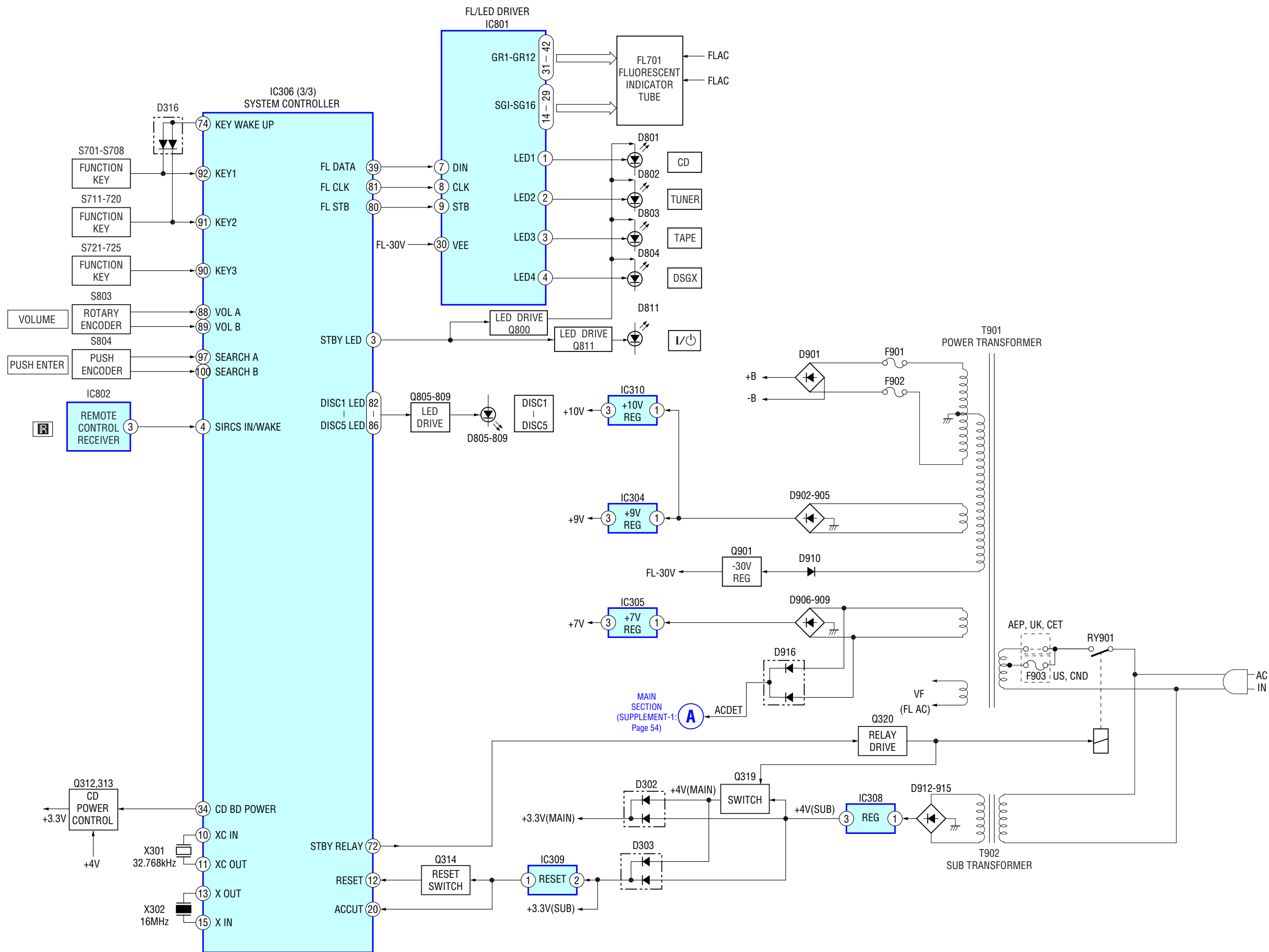
6-1. BLOCK DIAGRAM — BD/DRIVER SECTION —



6-2. BLOCK DIAGRAM — MAIN SECTION —

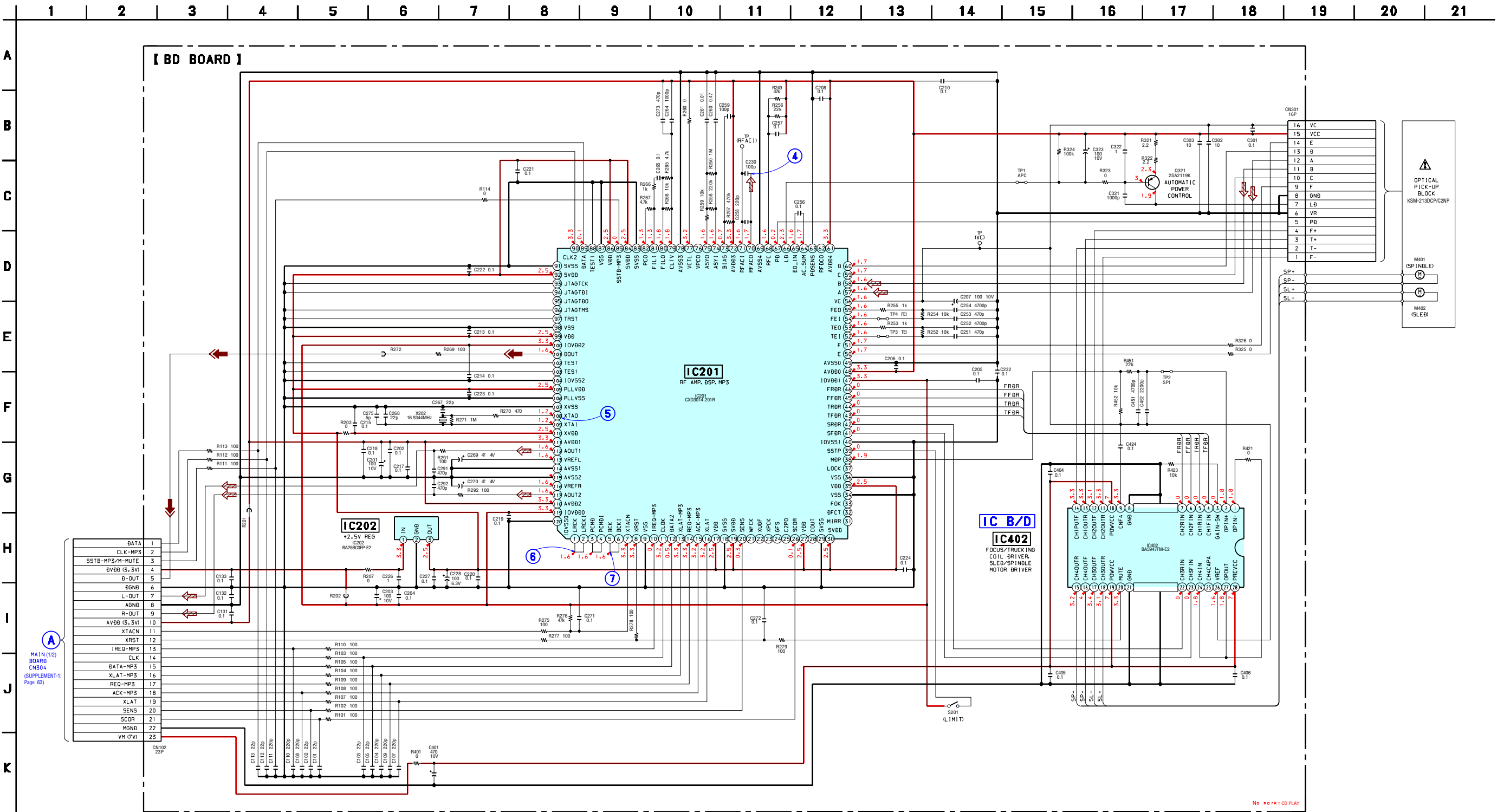


6-3. BLOCK DIAGRAM — PANEL/POWER SECTION —

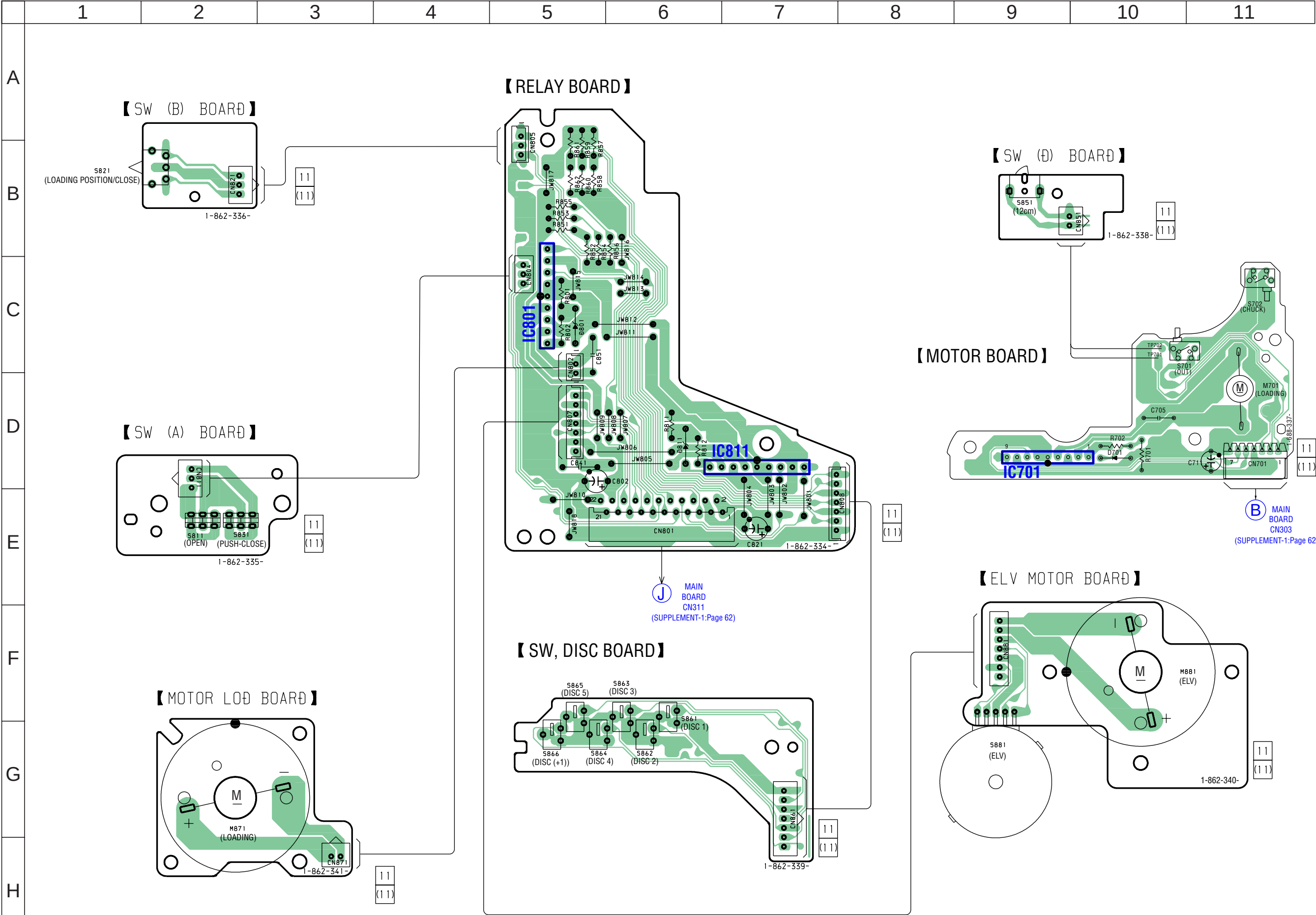




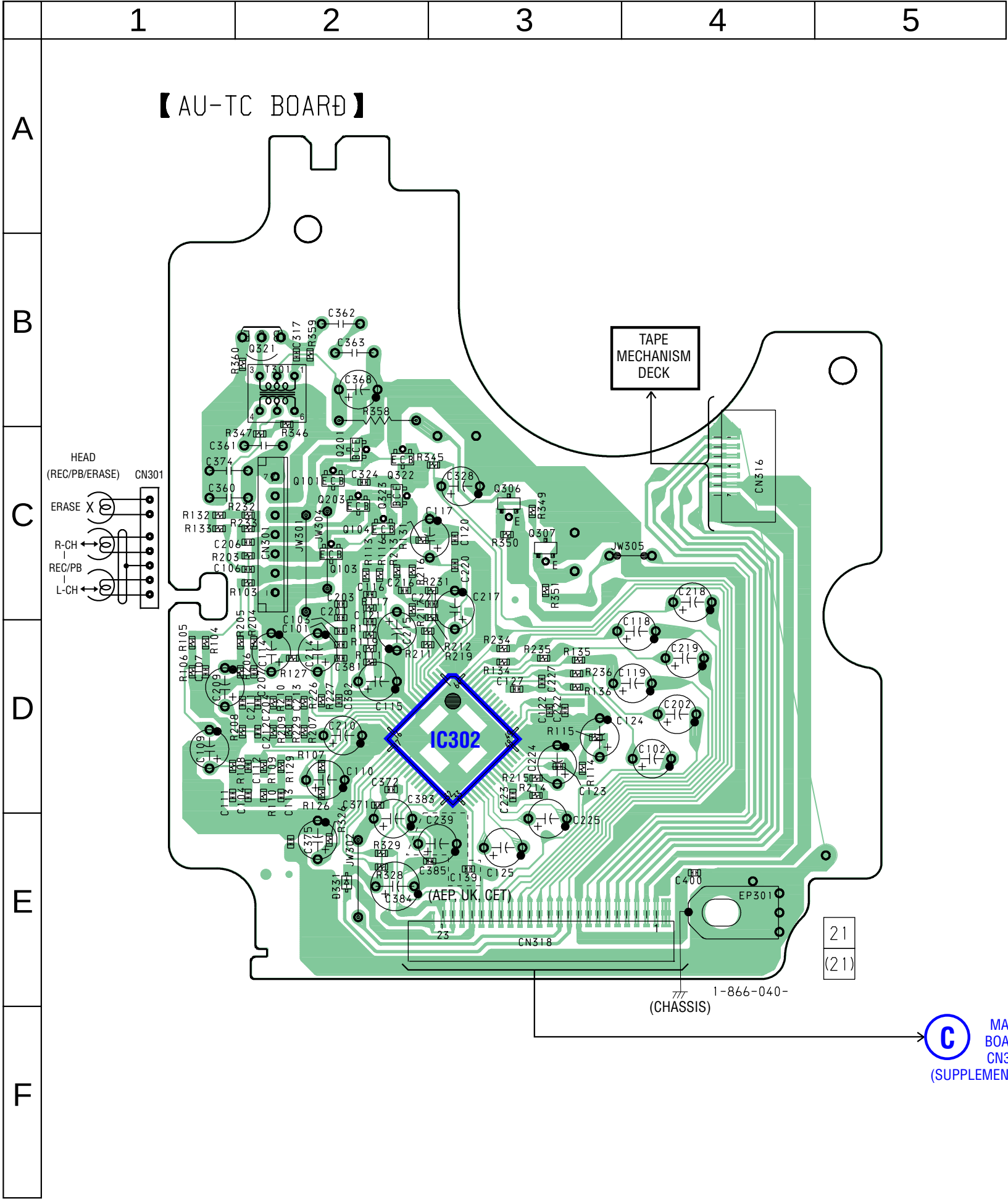
6-5. SCHEMATIC DIAGRAM — BD BOARD — • See page 74 for IC Block Diagram. • See page 73 for Waveforms. • See page 77 for IC Pin Function Description.



6-6. PRINTED WIRING BOARD — MOTOR SECTION — • See page 51 for Circuit Boards Location. :Uses unleaded solder.





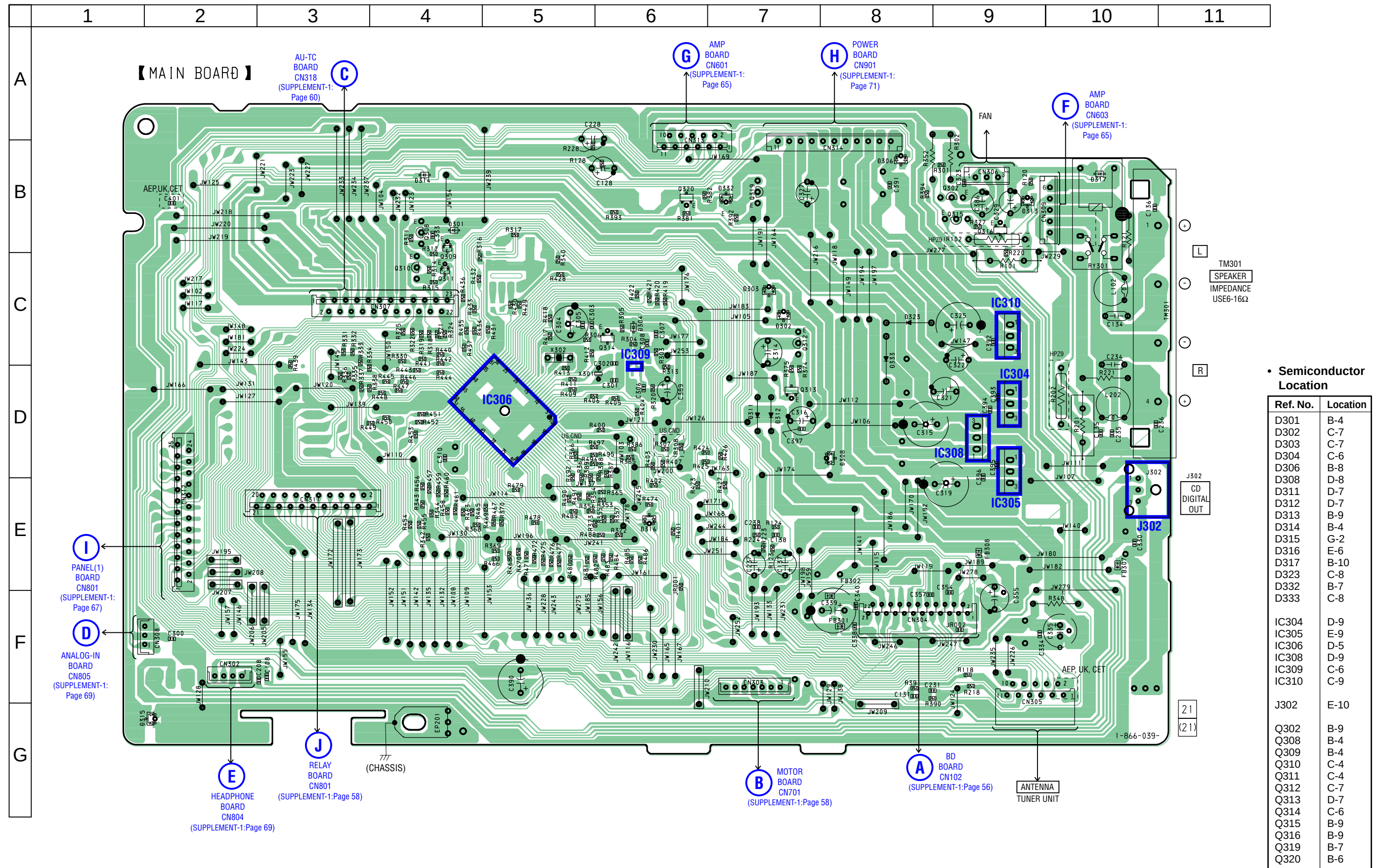


• Semiconductor Location

Ref. No.	Location
D331	E-2
IC302	D-3
Q101	C-2
Q103	C-2
Q104	C-2
Q201	B-2
Q203	C-2
Q306	C-2
Q307	C-3
Q321	B-1
Q322	B-2
Q323	C-3

C MAIN BOARD
CN307
(SUPPLEMENT-1:Page 62)

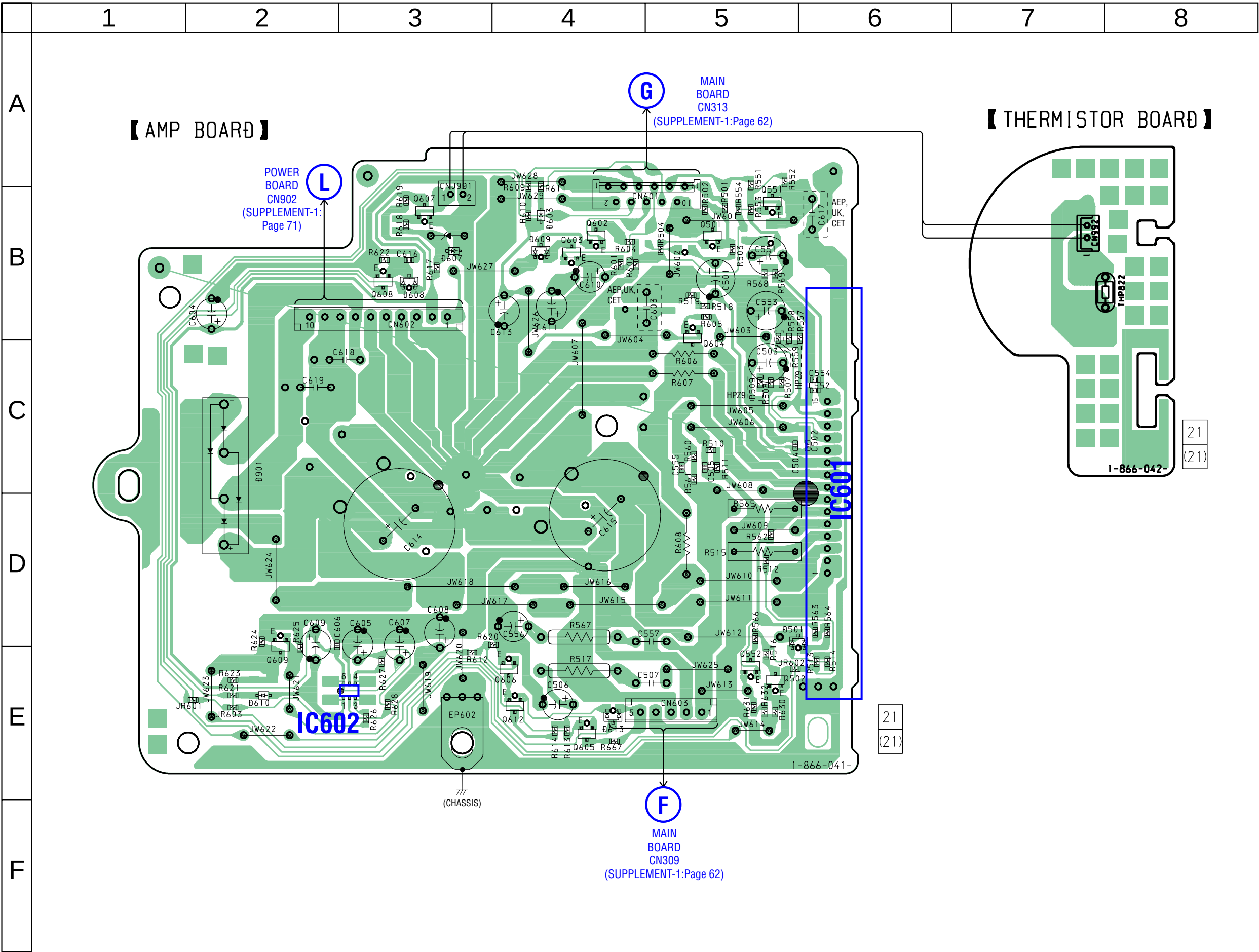






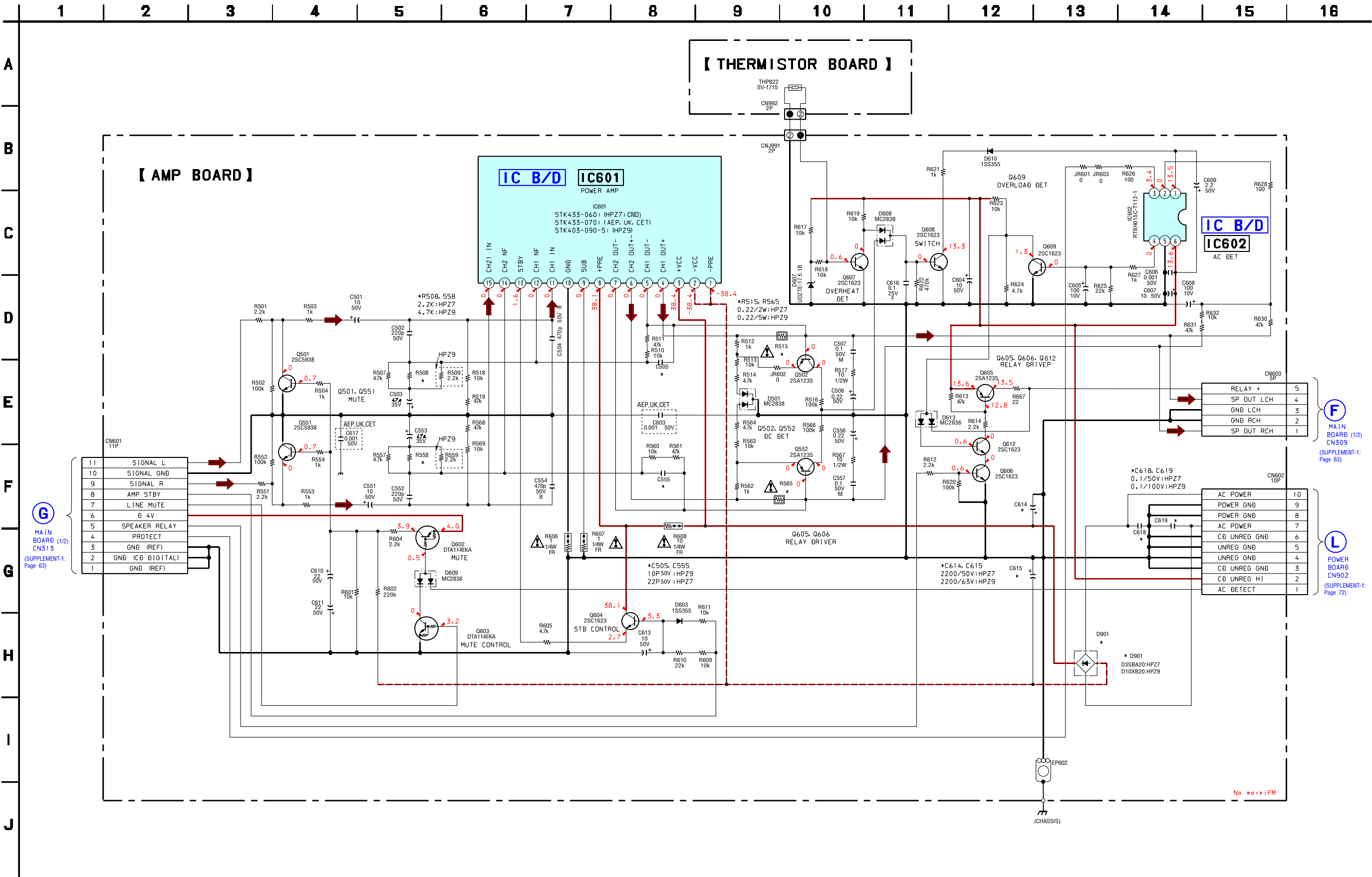


6-13. PRINTED WIRING BOARD — AMP SECTION — • See page 51 for Circuit Boards Location.  :Uses unleaded solder.

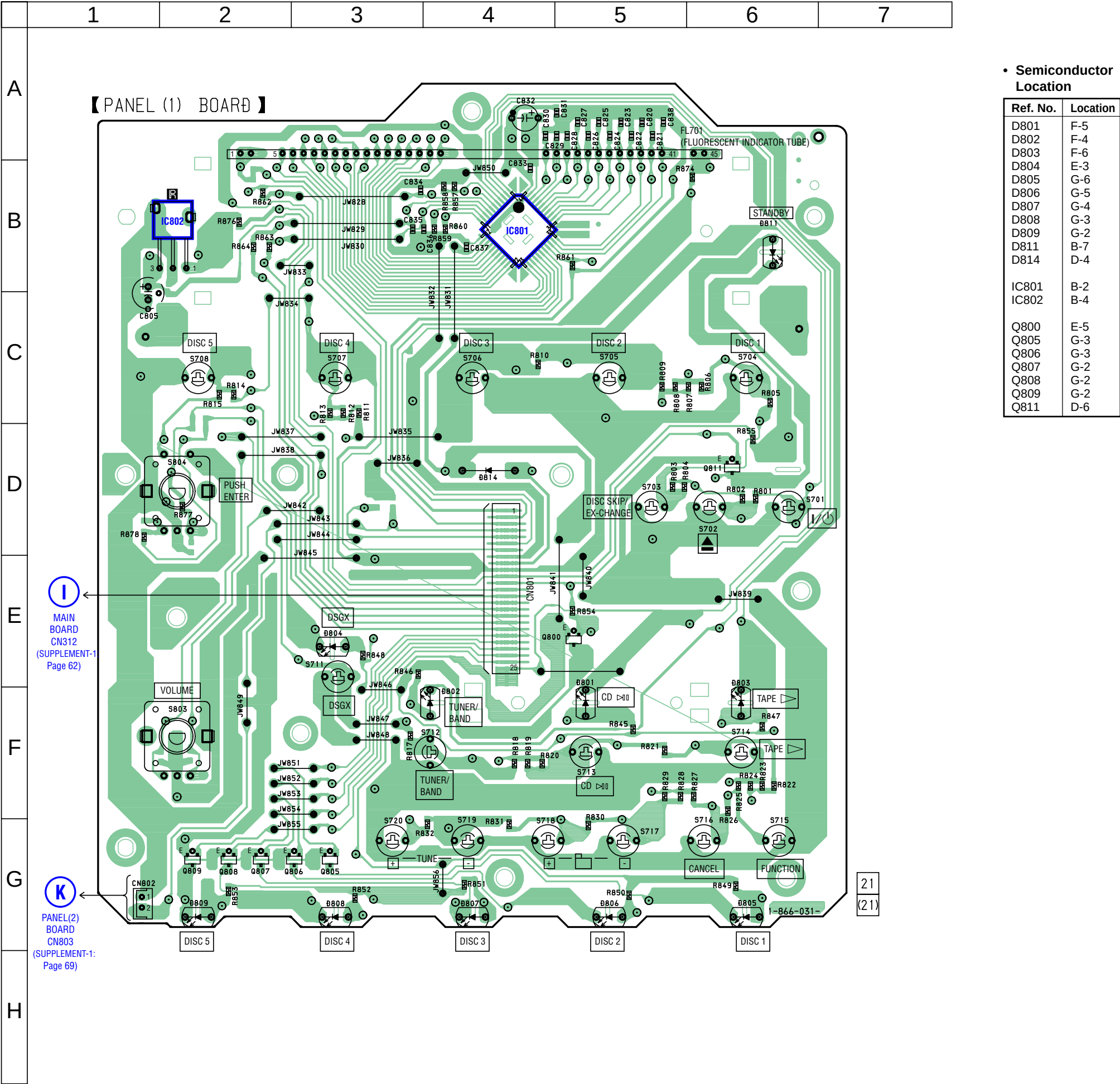


• Semiconductor Location

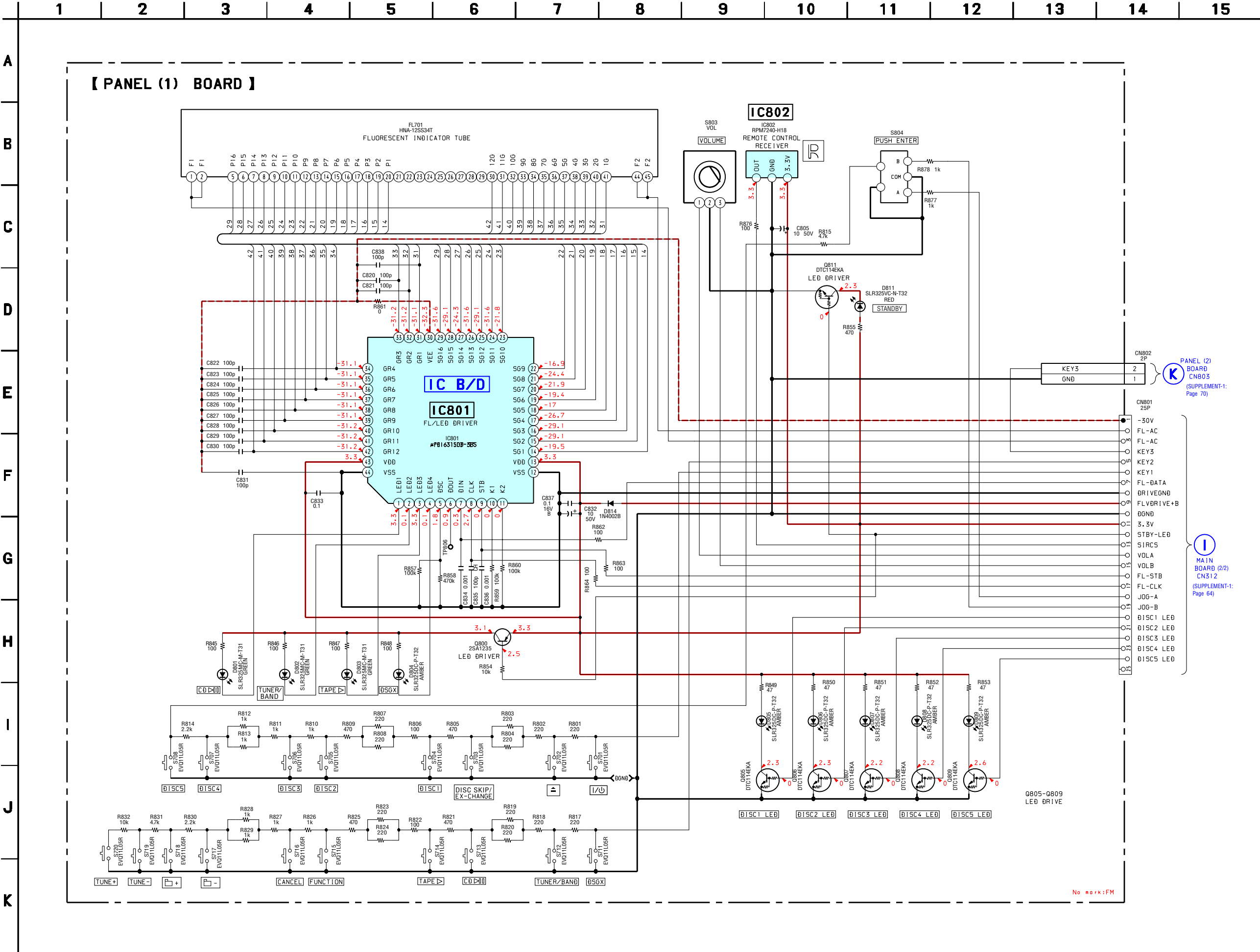
Ref. No.	Location
D501	D-5
D603	B-4
D607	B-3
D608	B-3
D609	B-3
D610	E-2
D613	E-4
D901	C-2
IC601	C-6
IC602	E-3
Q501	B-5
Q502	D-6
Q551	A-5
Q552	D-5
Q602	B-4
Q603	B-4
Q604	B-5
Q605	E-4
Q606	E-4
Q607	B-3
Q608	B-3
Q609	E-2
Q612	E-4



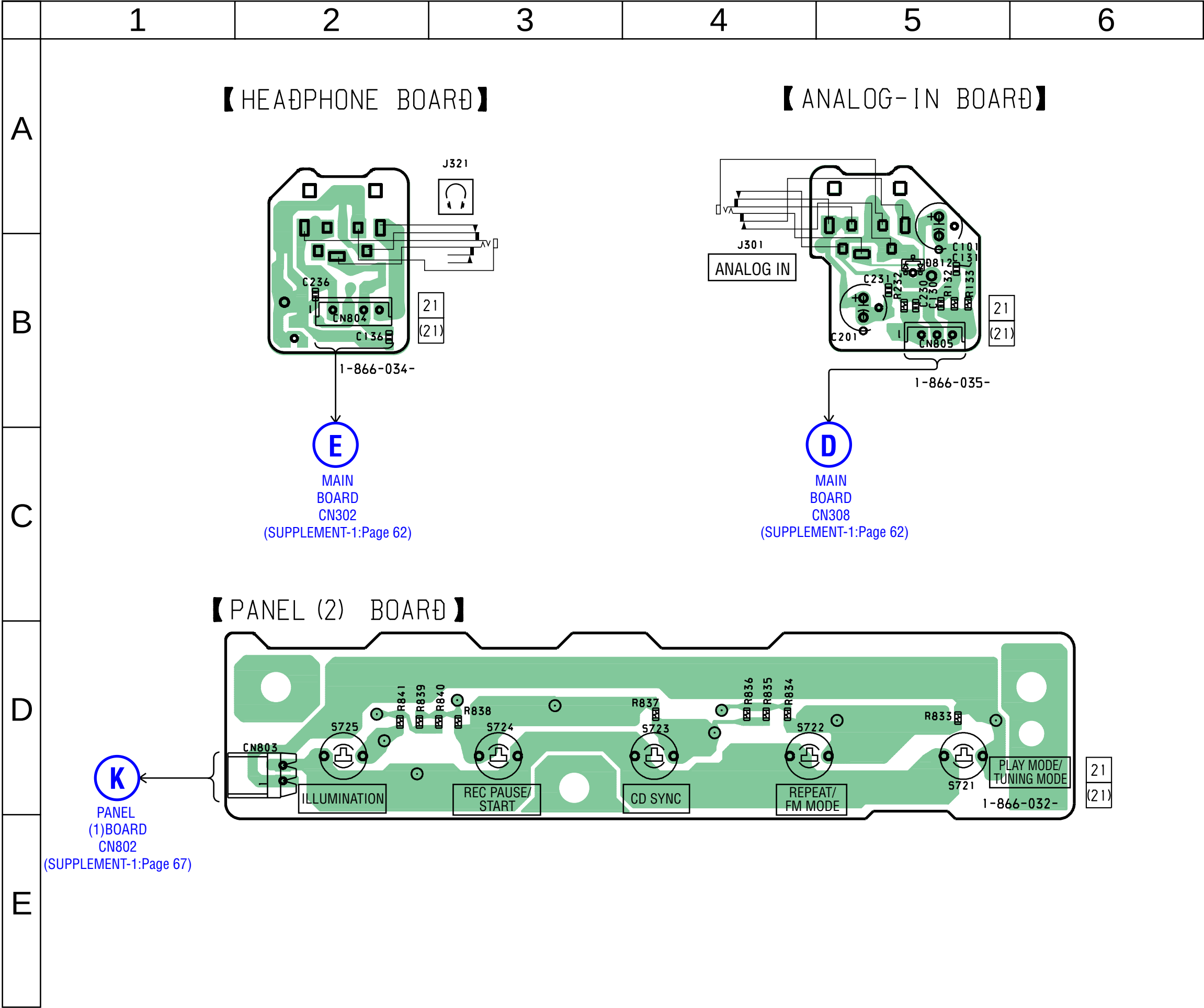
6-15. PRINTED WIRING BOARD — PANEL (1) BOARD — • See page 51 for Circuit Boards Location.  :Uses unleaded solder.

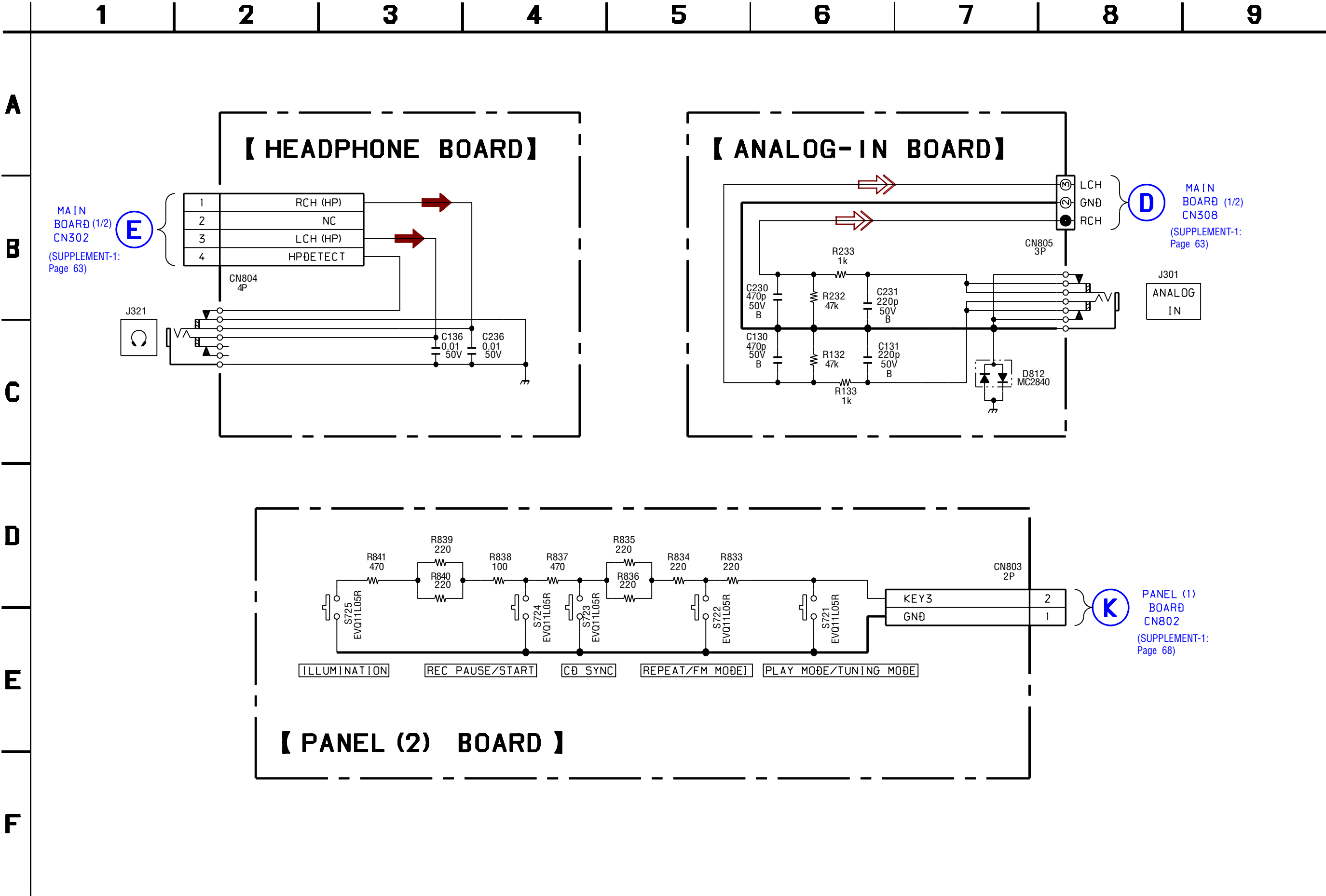


6-16. SCHEMATIC DIAGRAM — PANEL (1) BOARD — • See page 76 for IC Block Diagram.

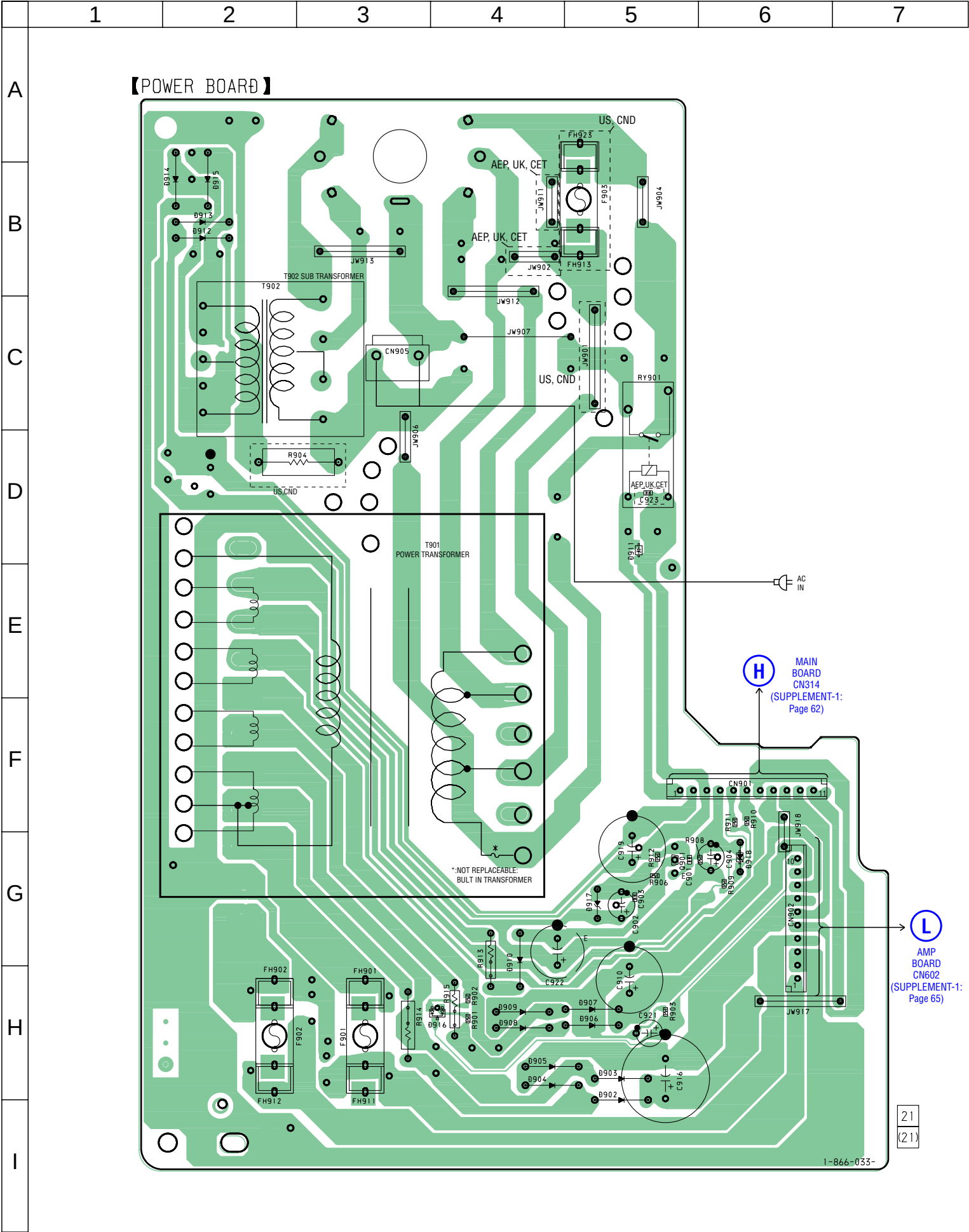


6-17. PRINTED WIRING BOARD — HEADPHONE SECTION — • See page 51 for Circuit Boards Location.  :Uses unleaded solder.



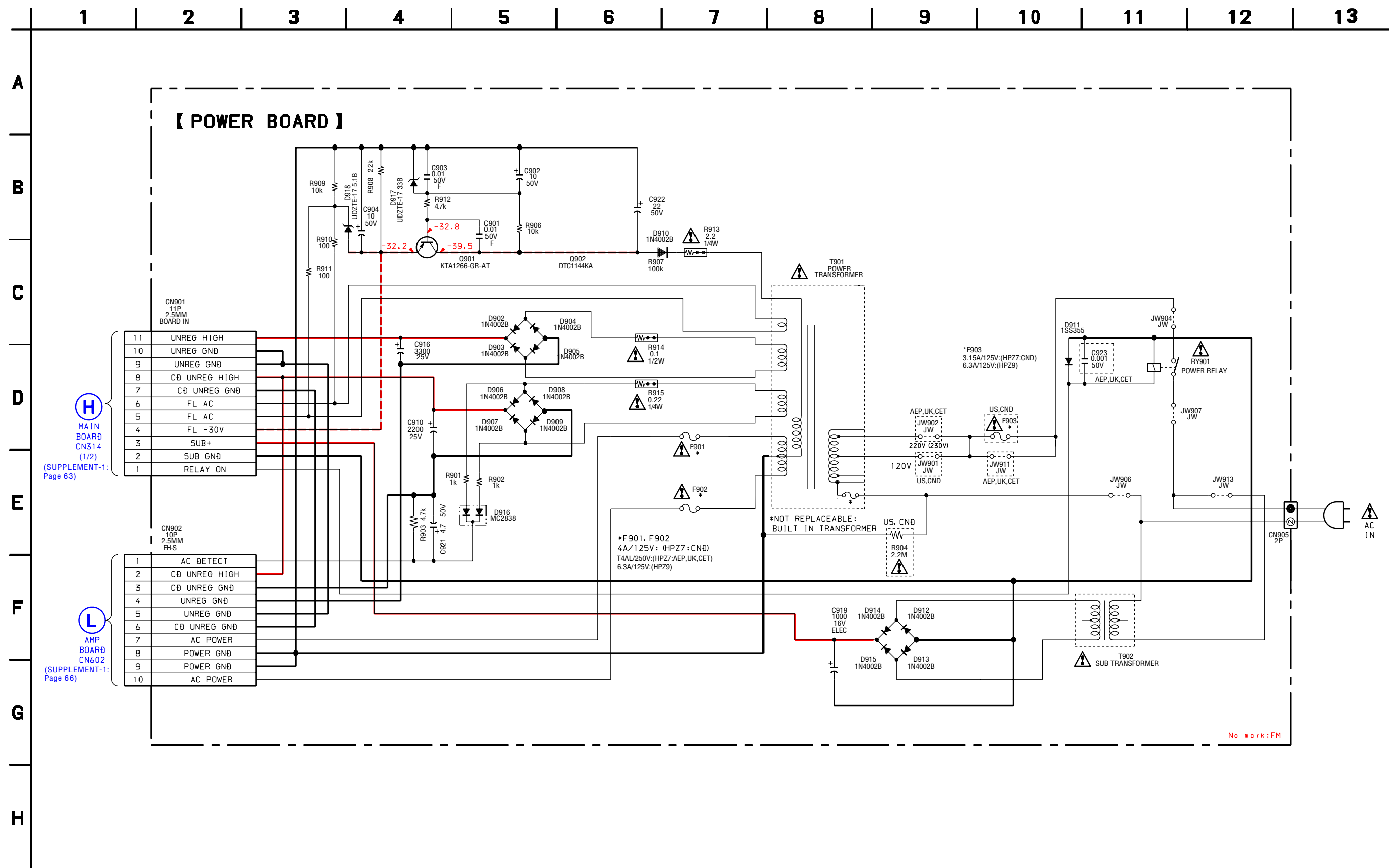


6-19. PRINTED WIRING BOARD — POWER BOARD — • See page 51 for Circuit Boards Location.  :Uses unleaded solder.



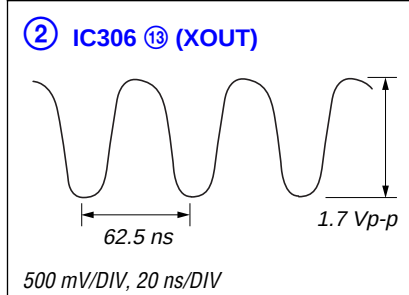
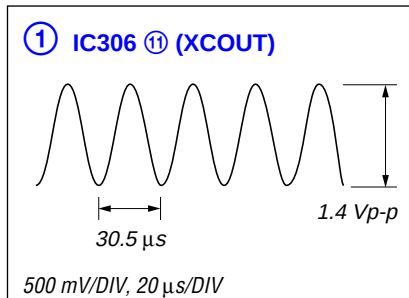
• Semiconductor Location

Ref. No.	Location
D902	H-5
D903	H-5
D904	H-4
D905	H-4
D906	H-5
D907	H-5
D908	H-4
D909	H-4
D910	H-4
D911	D-5
D912	B-2
D913	B-2
D914	B-2
D915	B-2
D916	H-3
D917	G-4
D918	G-6
Q901	G-5

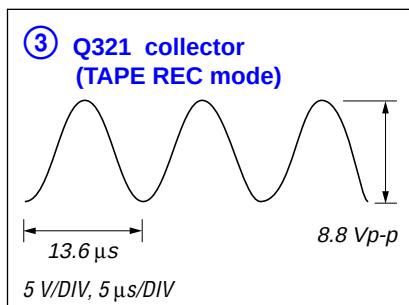


- Waveforms

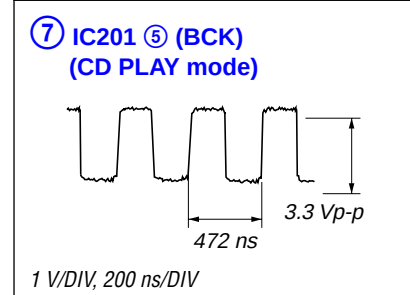
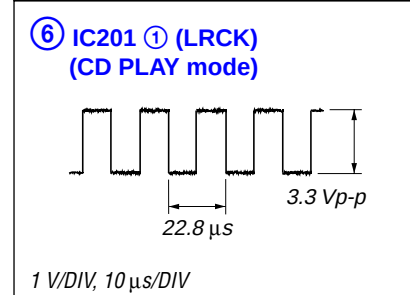
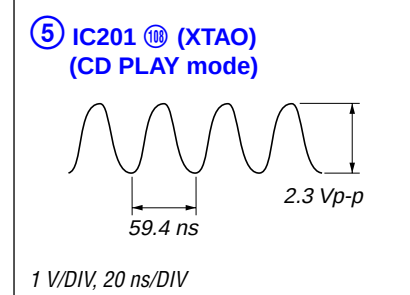
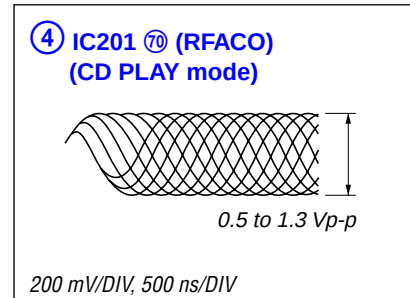
- MAIN Board –



- AU-TC Board –



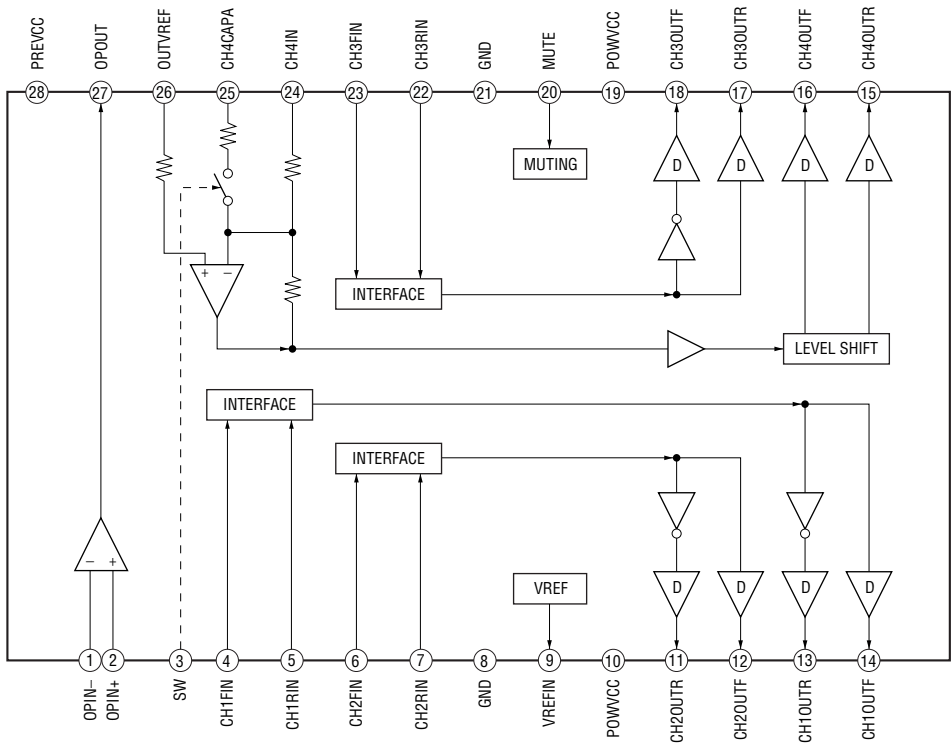
- BD Board –



HCD-HPZ7/HPZ9

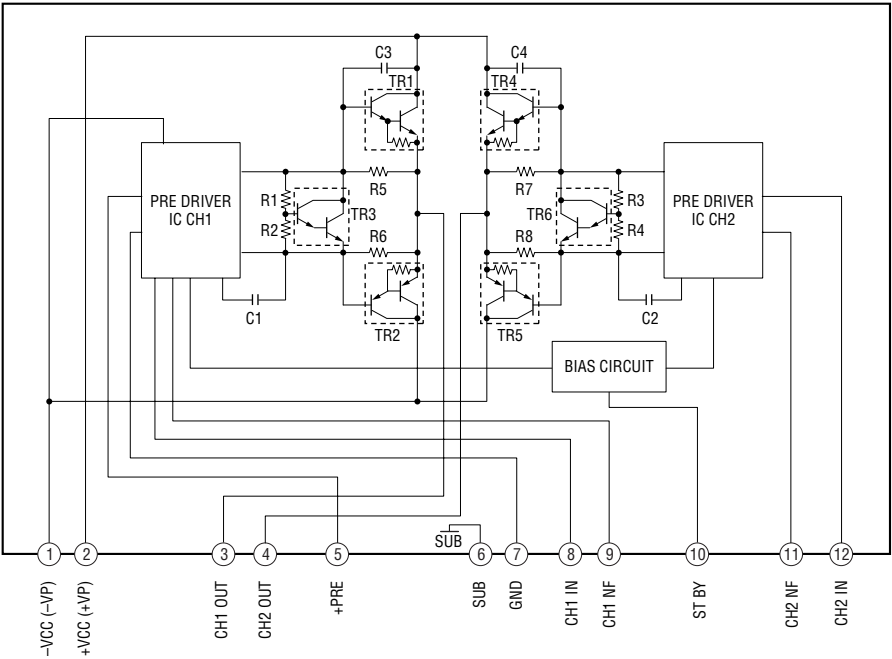
- IC Block Diagrams
- BD Board –

IC402 BA5947FM-E2

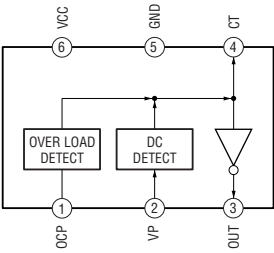


- AMP Board –

- IC601 STK433-060 (HPZ7:CND)
- IC601 STK433-070 (HPZ7:AEP,UK,CET)
- IC601 STK403-090-S (HPZ9)

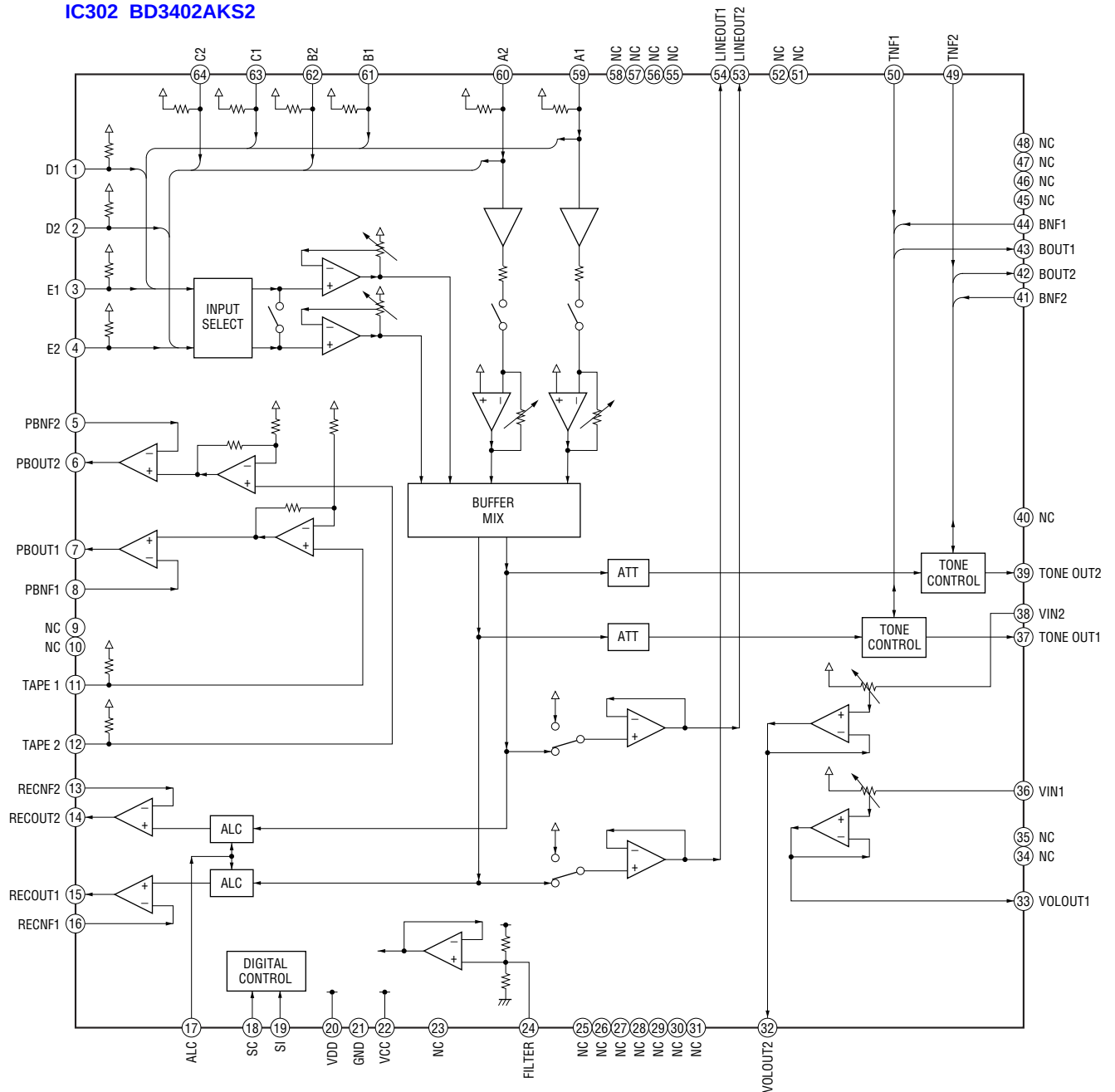


IC602 RT8H015C-T112-1



– AU-TC Board –

IC302 BD3402AKS2

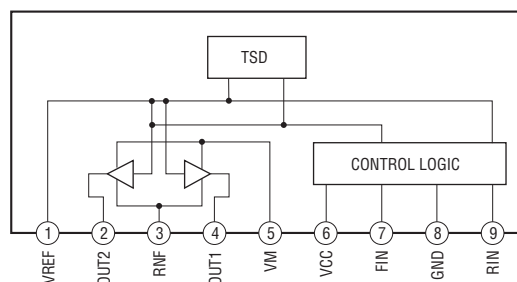


– RELAY Board –

IC801, IC811 BA6956AN

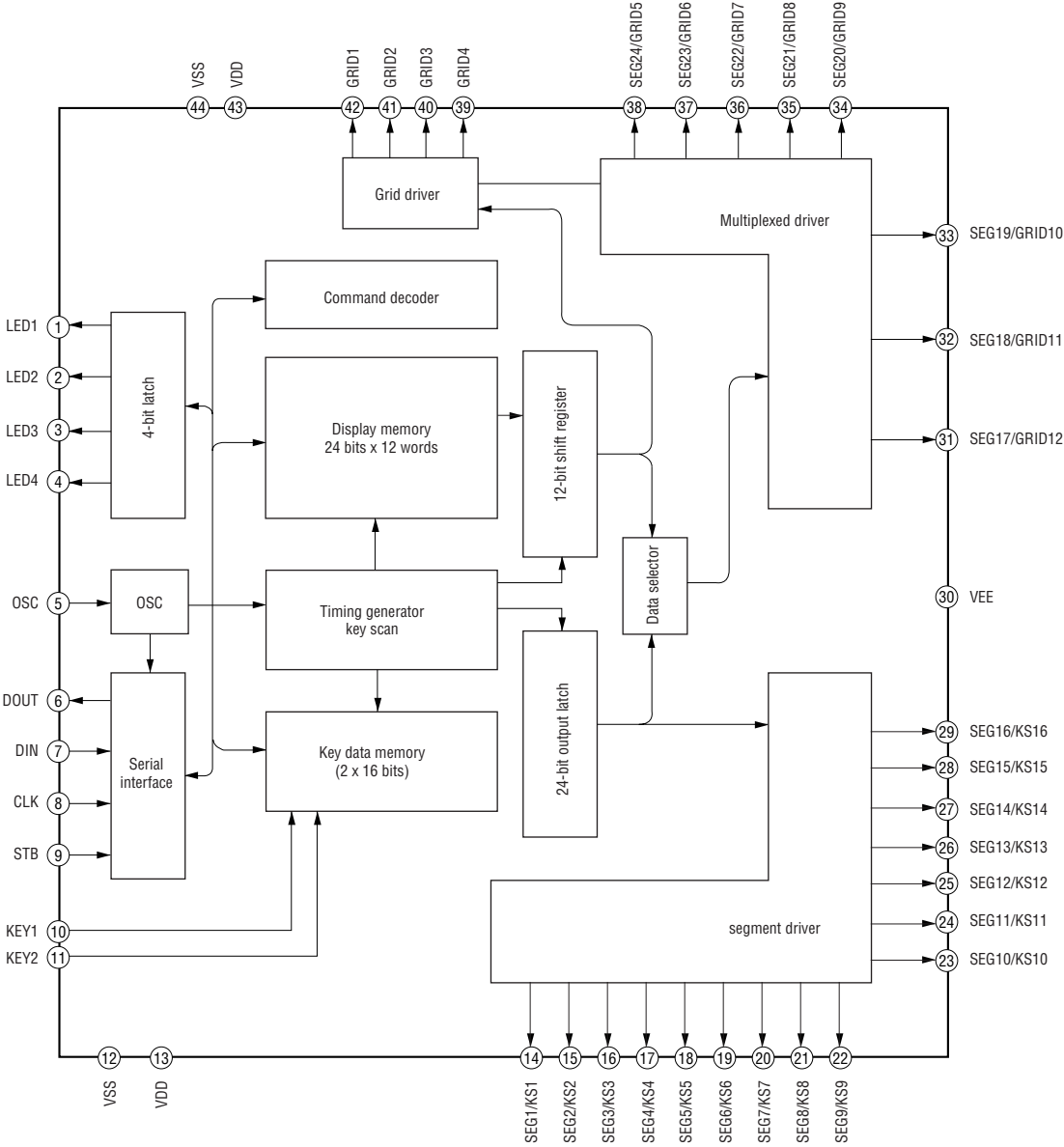
– MOTOR Board –

IC701 BA6956AN



- PANEL (1) Board -

IC801 uPD16315GB-3BS



• IC Pin Function Description

BD BOARD IC201 CXD3014-201R (RF AMP, DSP, MP3)

Pin No.	Pin Name	I/O	Description
1	LRCK	O	L/R sampling clock signal output
2	LRCKI	I	L/R sampling clock signal input
3	PCMD	O	PCM data output
4	PCMDI	I	PCM data input
5	BCK	O	Bit clock signal output
6	BCKI	I	Bit clock signal input
7	XTACN	I	Oscillation circuit
8	XRST	I	System reset signal input
9	VSS	—	Internal digital ground
10	IREQ-MP3	O	Data transfer request signal output to the system controller
11	CLOCK	I	Serial data transfer clock input from the system controller
12	D ATA2	I	Serial data input from the system controller
13	XLAT-MP3	I	Serial data latch pulse input from the system controller
14	REQ-MP3	I	Data transfer request signal input from the system controller
15	ACK-MP3	O	Acknowledge signal output to the system controller
16	XLAT	I	Latch input from the system controller
17	VDD	—	Power supply (+2.5V)
18	SVSS	—	Internal digital ground
19	SVDD	—	Power supply (+2.5V)
20	SENS	O	SENS output to the system controller
21	WFCK	O	WFCK output (Not used)
22	XUGF	O	XUGF output (Not used)
23	XPCK	O	XPCK output (Not used)
24	GFS	O	GFS output (Not used)
25	C2PO	O	C2PO output (Not used)
26	SCOR	O	High output when the subcode sync, S0 or S1, is detected
27	VDD	—	Power supply (+2.5V)
28	COUT	I/O	Track number count signal input/output (Not used)
29	SVSS	—	Internal digital ground
30	SVDD	—	Power supply (+2.5V)
31	MIRR	I/O	Mirror signal input/output (Not used)
32	DFCT	I/O	Defect signal input/output (Not used)
33	FOK	I/O	Focus OK signal input/output (Not used)
34	VSS	—	Internal digital ground
35	VDD	—	Power supply (+2.5V)
36	VSS	—	Internal digital ground
37	LOCK	I/O	GFS is sampled at 460Hz; when GFS is high , this pin outputs a high signal If GFS is low eight consecutive (Not used)
38	MDP	O	Spindle motor servo control output
39	SSTP	I	Disk innermost detection signal input
40	IOVSS1	—	Internal digital ground
41	SFDR	O	Sled drive output
42	SRDR	O	Sled drive output
43	TFDR	O	Tracking drive output
44	TRDR	O	Tracking drive output
45	FFDR	O	Focus drive output
46	FRDR	O	Focus drive output

Pin No.	Pin Name	I/O	Description
47	IOVDD1	—	I/O digital power supply (+3.3V)
48	AVDD0	—	Analog power supply (+3.3V)
49	AVSS0	—	Analog ground
50	E	I	E signal input
51	F	I	F signal input
52	TEI	I	Tracking error signal input to DSSP block
53	TEO	O	Tracking error signal output from RF amplifier block
54	FEI	I	Focus error signal input to DSSP block
55	FEO	O	Focus error signal output from RF amplifier block
56	VC	O	Center voltage output
57	A	I	A signal input
58	B	I	B signal input
59	C	I	C signal input
60	D	I	D signal input
61	AVDD4	—	Analog power supply (+3.3V)
62	RFDCO	O	RFDC signal output (Not used)
63	PDSSENS	I	Reference voltage pin for PD (Analog ground)
64	AC_SUM	O	RFAC summing amplifier output
65	EQ_IN	I	Equalizer circuit input
66	LD	O	APC amplifier output
67	PD	I	APC amplifier input
68	RFC	I	Equalizer cut-off frequency adjustment pin
69	AVSS4	—	Analog ground
70	RFACO	O	RFAC signal output
71	RFACI	I	RFAC signal input or EFM signal input
72	AVDD3	—	Analog power supply (+3.3V)
73	BIAS	I	Asymmetry circuit constant current input
74	ASYI	I	Asymmetry comparator voltage input
75	ASYO	O	EFM full-swing output (Low = VSS, High = VDD)
76	VPCO	O	Wide-band EFM PLL charge pump output (Not used)
77	VCTL	I	Wide-band EFM PLL VCO2 control voltage input (connected to ground)
78	AVSS3	—	Analog ground
79	CLTV	I	Multiplier VCO1 control voltage input
80	FILO	O	Master PLL (slave = digital PLL) filter output
81	FILI	I	Master PLL filter input
82	PCO	O	Master PLL charge pump output
83	SVSS	—	Internal digital ground
84	SVDD	—	Power supply (+2.5V)
85	SSTB-MP3	I	Standby signal input from the system controller
86	VDD	—	Power supply (+2.5V)
87	VSS	—	Internal digital ground
88	TEST1	I	Test pin Normally ground
89	DATA	I	Serial data input from the system controller
90	CLK2	I	Serial clock input from the system controller
91	SVSS	—	Internal digital ground
92	SVDD	—	Power supply (+2.5V)
93	JTAGTOK	—	Internal digital ground
94	JTAGTDI	—	Internal digital ground
95	JTAGTDO	—	Not used

Pin No.	Pin Name	I/O	Description
96	JTAGTMS	—	Internal digital ground
97	TRST	—	Internal digital ground
98	VSS	—	Internal digital ground
99	VDD	—	Power supply (+2.5V)
100	IOVDD2	—	I/O digital power supply (+3.3V)
101	DOUT	O	Digital out output
102	TEST	I	Test pin Normally ground
103	TES1	I	Test pin Normally ground
104	IOVSS2	—	Internal digital ground
105	PLLVD	—	Power supply (+2.5V)
106	PLLVS	—	Internal digital ground
107	XVSS	—	Internal digital ground
108	XTAO	O	Crystal oscillation circuit output
109	XTAI	I	Crystal oscillation circuit input
110	XVDD	—	Master clock power supply (+2.5V)
111	AVDD1	—	Analog power supply (+3.3V)
112	AOUT1	O	Lch analog output
113	VREFL	O	Lch reference voltage
114	AVSS1	—	Analog ground
115	AVSS2	—	Analog ground
116	VREFR	O	Rch reference voltage
117	AOUT2	O	Rch analog output
118	AVDD2	—	Analog power supply (+3.3V)
119	IOVDD0	—	I/O digital power supply (+3.3V)
120	IOVSS0	—	Internal digital ground

MAIN BOARD IC306 M30624MGP-A56FPU0 (SYSTEM CONTROLLER)

Pin No.	Pin Name	I/O	Description
1	CD DISCSENS 2	I	DISC 4, 5 and DISC (+1) detect signal input
2	CD DISCSENS 1	I	DISC 1 to 3 detect signal input
3	STBY LED	O	LED drive signal output terminal (power)
4	SIRCS IN/WAKE	I	SIRCS signal input terminal
5	MP3 DATA OUT	O	Serial data output to the MP3 decoder
6	MP3 DATA IN	I	Serial data input from the MP3 decoder
7	MP3 CLK	O	Serial data transfer clock signal output to the MP3 decoder
8	BYTE	I	External data bus width select signal input terminal (connected to ground)
9	CNVSS	—	Ground terminal
10	XCIN	I	Sub system clock input terminal (32.768 kHz)
11	XCOUT	O	Sub system clock output terminal (32.768 kHz)
12	RESET	I	System reset signal input terminal “L”: reset For several hundreds msec. after the power supply rises, “L” is input, then it changes to “H”
13	XOUT	O	Main system clock output terminal (16 MHz)
14	VSS	—	Ground terminal
15	XIN	I	Main system clock input terminal (16 MHz)
16	VCC	—	Power supply terminal (+3.3V)
17	NMI	I	Non-maskable interrupt signal input terminal (Not used)
18	RDS-CLK	O	RDS serial data transfer clock signal output terminal (only for AEP, UK, CET models)
19	CD SCOR	I	Subcode Q data request signal input terminal
20	AC-CUT	I	Power down detection signal input terminal “L”: power down
21	RDS DATA	I	RDS serial data input terminal (only for AEP, UK, CET models)
22	CD XRST	O	System reset signal output to the RF AMP
23	CD XLT	O	Latch pulse signal output to the RF AMP
24	MP3 ACK	I	Acknowledge signal input from the MP3 decoder
25	MP3 XLAT	O	Serial data latch pulse output to the MP3 decoder
26	MP3 REQ	O	Data transfer request signal output to the MP3 decoder
27	MP3 IREQ	I	Data transfer request signal input from the MP3 decoder
28	MP3 STB	O	Standby signal output to the MP3 decoder
29	IIC CLK	I/O	IIC data transfer clock signal input and output (Not used)
30	IIC DATA	I/O	IIC two-way data bus (Not used)
31	SDA	O	SDA signal output
32	SCL	O	SCL signal output
33	XTCN	O	Oscillator control signal output to the CD DSP
34	CD BD POWER	O	Power on/off control signal output for CD block
35	CD DATA	O	Serial data output to the CD DSP
36	CD SENS	I	Internal status (SENSE) input from the CD DSP
37	CD CLK	O	Serial data transfer clock signal output to the CD DSP
38	CD AMUTE	O	CD muting on/off control signal output terminal (Not used)
39	FL DATA	O	Serial output to the FL/LED driver
40	ELV E3/TRE A	I	ELV pulse input from the rotary encoder
41	ELV E2/TRE B	I	ELV dial pulse input from the rotary encoder
42	ELV E1/BASS A	I	ELV dial pulse input from the rotary encoder
43	ELV E0/BASS B	I	ELV dial pulse input from the rotary encoder
44	SW4 (8CM)	I	CD disc size detection (8cm) signal input terminal
45	SW3 (PUSH-CLOSE)	I	CD push-close switch input terminal
46	SW2-1 (CLOSE)	I	CD close switch input terminal
47	SW2-2 (LOD POSITION)	I	CD loading position switch input terminal
48	SW1 (OPEN)	I	CD open switch input terminal

Pin No.	Pin Name	I/O	Description
49	ELV NEG	O	Elevator up/down motor control signal output
50	ELV POS	O	Elevator up/down motor control signal output
51	LOD NEG	O	Loading motor control signal output
52	LOD POS	O	Loading motor control signal output
53	CDM80 LOAD-OUT	O	Loading motor control signal output (loading out direction)
54	CDM80 LOAD-IN	O	Loading motor control signal output (loading in direction)
55	(TRIGGER) CDM80 SW3	I	12cm DISC switch “L”: switch on
56	(OUT SW) CDM80 SW1	I	Out switch input terminal “L”: switch on
57	(CHUCK SW) CDM80 SW2	I	Chuck switch input terminal “L”: switch on
58	TC PLAY	I	Tape play switch input terminal
59	TC TRG	O	Plunger driver signal output terminal “L”: plunger on
60	TC CAPM CONT	O	Capstan/reel motor drive signal output terminal “L”: forward, “H”: reverse
61	BIAS ON	O	REC bias on/off control signal output terminal “H”: REC bias on
62	VCC	—	Power supply terminal (+3.3V)
63	TC R/P	O	PB/REC switching control signal output terminal “L”: PB
64	VSS	—	Ground terminal
65	HP DETECT	I	Headphone detection signal input
66	LINE MUTE	O	Line muting on/off control signal output terminal “H”: muting on
67	PROTECT	I	Protect signal input from the amplifier circuit “L”: protect
68	SP RELAY	O	Speaker on/off relay drive signal output terminal “L”: speaker off
69	AMP POWER	O	AMP muting on/off control signal output terminal “H”: AMP on
70	AMP DATA	O	Serial data output to the sound processor
71	AMP CLK	O	Serial data transfer clock signal output to the sound processor
72	STBY-RELAY	O	Relay drive signal output for main power supply “H”: power on
73	SW-POWER	O	Sub power block on/off control signal output terminal (Not used)
74	KEY WAKE UP	I	System wake up signal input terminal in the standby status
75	ST TUNED	I	Tuning detection signal input from the tuner unit “L”: tuned
76	ST CE	O	Chip enable signal output to the FM/AM tuner unit
77	ST DATA OUT	O	Serial data output to the FM/AM tuner unit
78	DIN/STEREO	I	FM stereo detection signal input from the tuner unit “L”: stereo
79	ST CLK	O	Serial data transfer clock signal output to the FM/AM tuner unit
80	FL STB	O	Serial data read strobe signal output to the FL/LED driver
81	FL CLK	O	Serial data transfer clock signal output to the FL/LED driver
82	DISC1 LED	O	DISC1 LED control signal output
83	DISC2 LED	O	DISC2 LED control signal output
84	DISC3 LED	O	DISC3 LED control signal output
85	DISC4 LED	O	DISC4 LED control signal output
86	DISC5 LED	O	DISC5 LED control signal output
87	FAN ON	O	Fan motor drive signal output terminal
88, 89	VOL A, VOL B	I	Volume signal input terminal
90 to 92	KEY3 to KEY1	I	Front panel key or headphone detection input terminal (A/D input)
93	SPEC-IN	I	Setting terminal for the destination
94	TC END SW	I	End switch detection from tape deck block
95	TC HALF/REC SW	I	Half/REC switch detection from tape deck block
96	AVSS	—	Ground terminal
97	SEARCH A	I	Jog dial pulse input terminal
98	VREF	I	Reference voltage (+3.3V) input terminal
99	AVCC	—	Power supply terminal (+3.3V)
100	SEARCH B	I	Jog dial pulse input terminal

SECTION 7
EXPLODED VIEWS

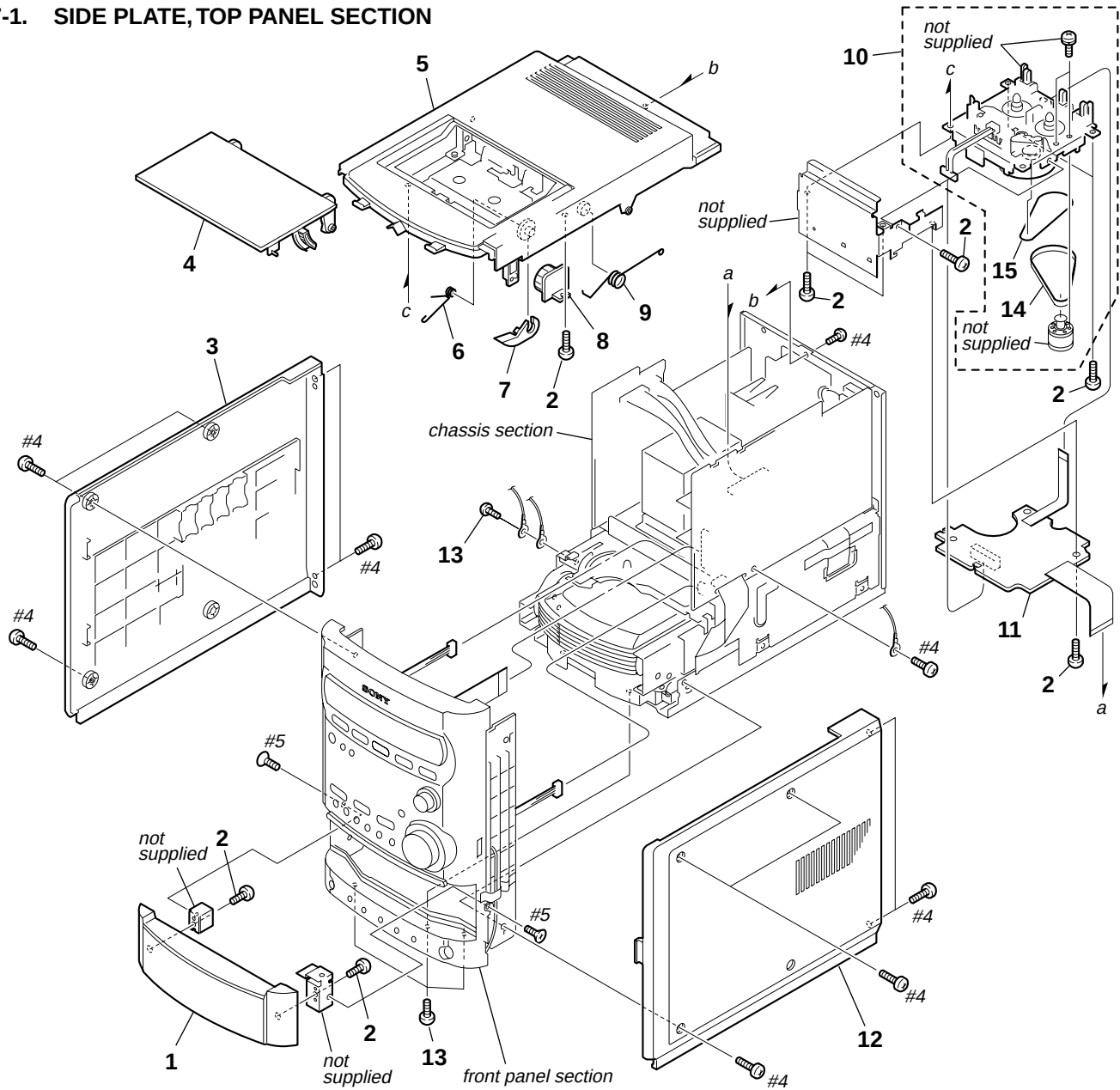
NOTE:

- XX and -X mean standardized parts, so they may have some difference from the original one.
 - Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
 - The mechanical parts with no reference number in the exploded views are not supplied.
- Abbreviation
CND : Canadian model
CET : East European and Russian model

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

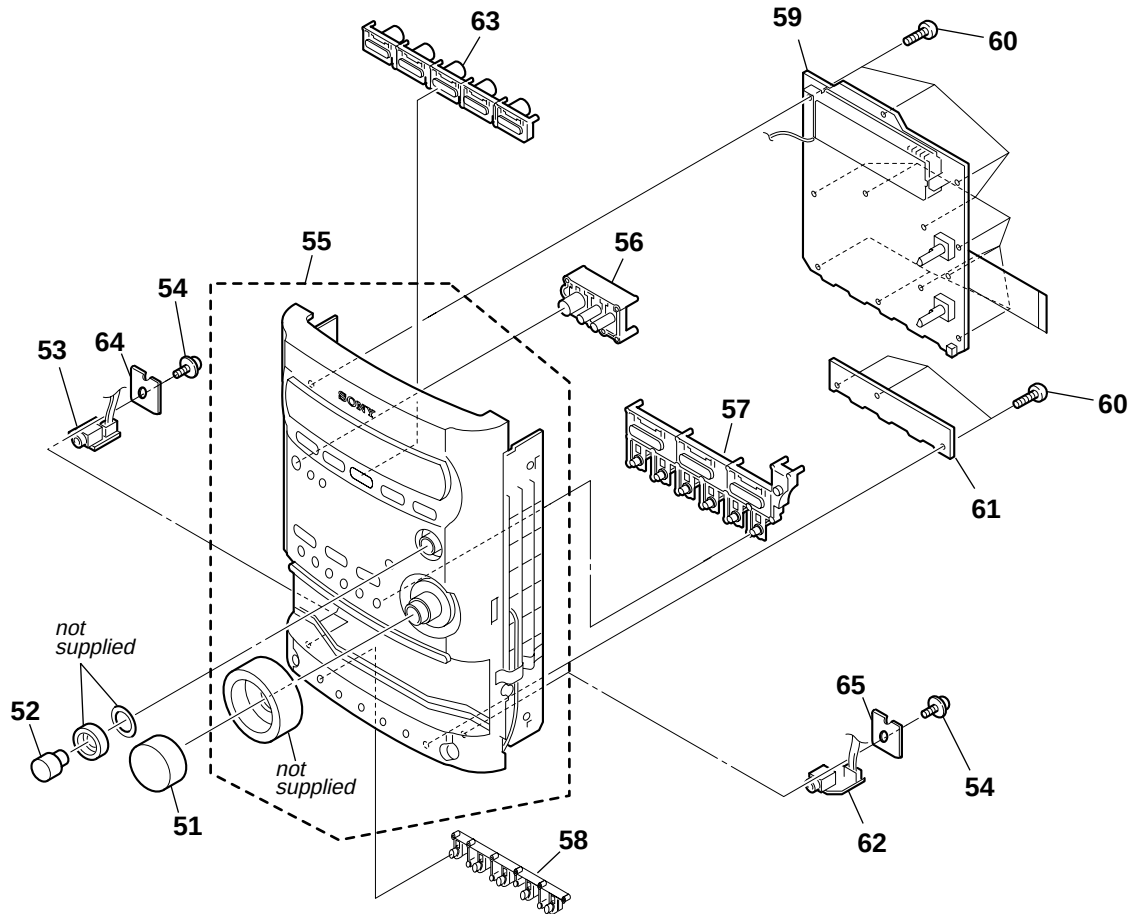
Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

7-1. SIDE PLATE, TOP PANEL SECTION



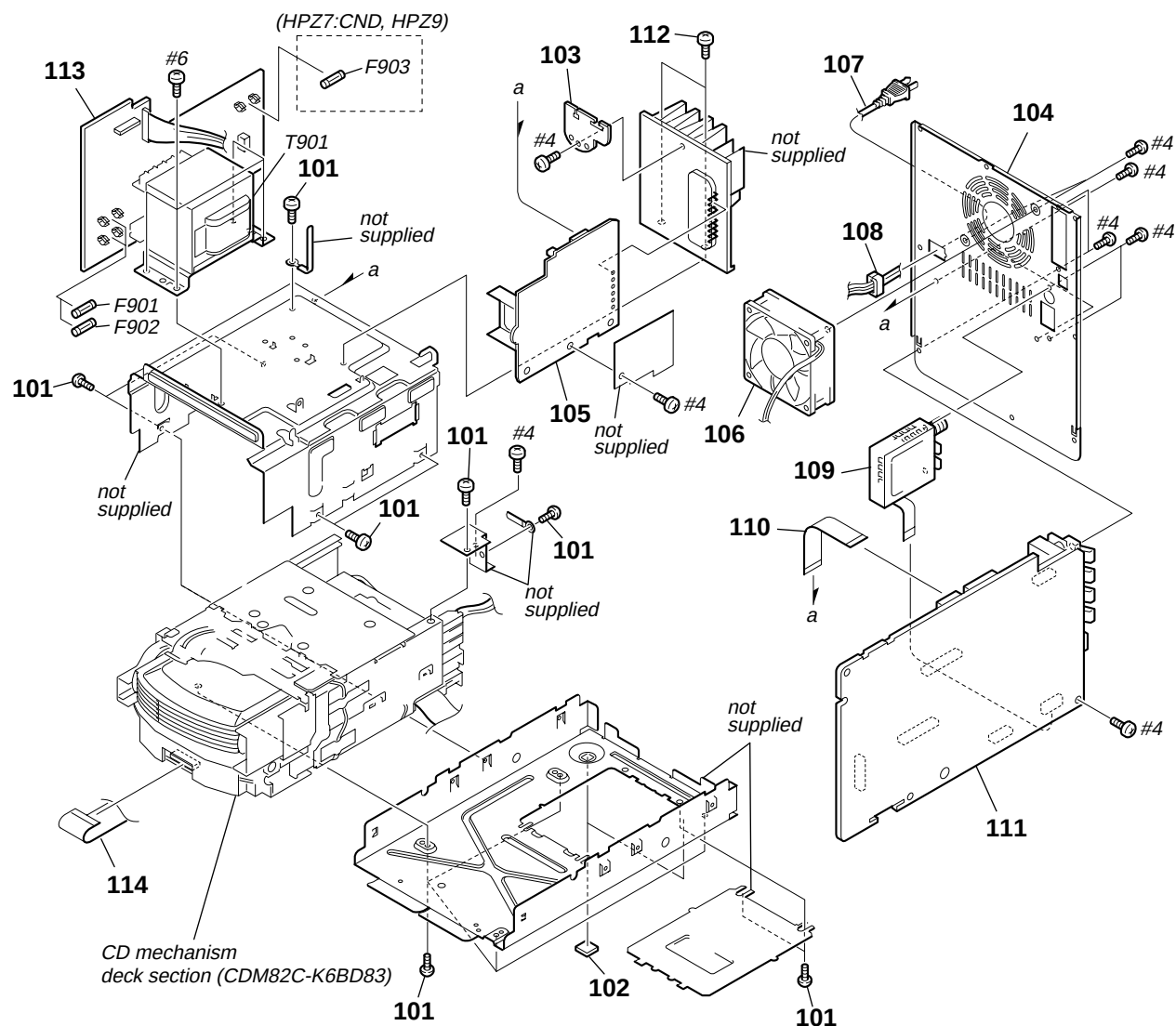
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1	2-584-889-01	CD LID (US, CND)		9	2-587-384-01	SPRING (CASSETTE)	
1	2-584-889-11	CD LID (AEP , UK, CET)		10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)	
2	3-254-151-01	SCREW (B2.6), (+) P TAPPING		11	A-1147-906-A	AU-TC BOARD, COMPLETE (US, CND)	
3	2-584-892-02	PLATE (L), SIDE (US, CND)		11	A-1147-921-A	AU-TC BOARD, COMPLETE (AEP, UK, CET)	
3	2-584-892-12	PLATE (L), SIDE (AEP, UK, CET)					
4	2-584-891-01	LID, CASSETTE		12	2-584-893-02	PLATE (R), SIDE (US, CND)	
5	2-584-890-01	CABINET (TOP) (US, CND)		12	2-584-893-12	PLATE (R), SIDE (AEP, UK, CET)	
5	2-584-890-11	CABINET (TOP) (AEP, UK, CET)		13	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S	
6	2-633-043-01	SPRING (HEART CAM-A)		14	2-655-725-01	BELT (MAIN)	
7	4-231-824-01	CAM (A), HEART		15	2-655-726-01	BELT (MO), F/R	
8	3-047-468-01	DAMPER		#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
				#5	7-685-246-19	SCREW +KTP 3X8 TYPE2 NON-SLIT	

7-2. FRONT PANEL SECTION



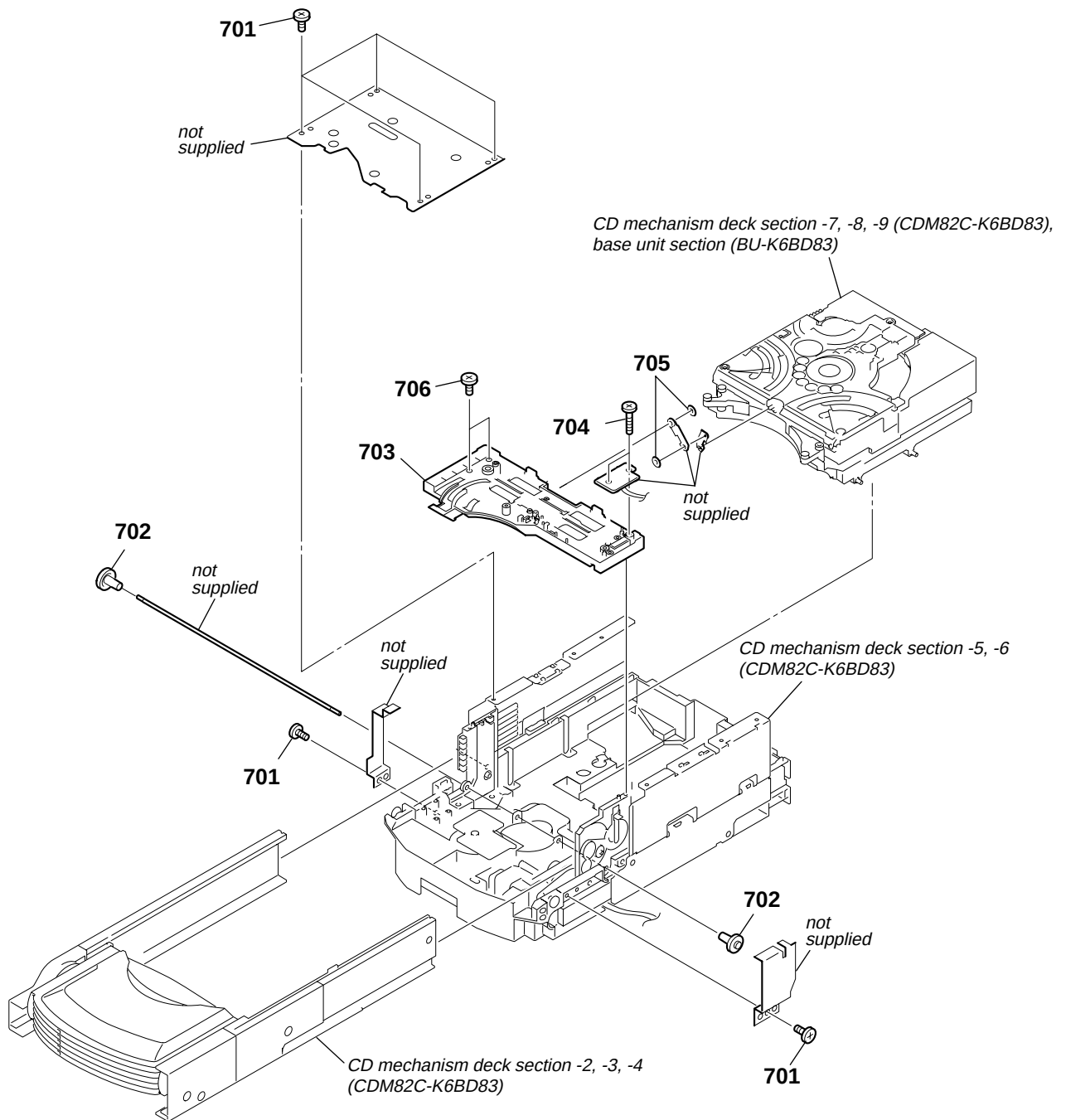
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
51	2-584-897-01	KNOB (VOL)		59	A-1147-894-A	PANEL (1) BOARD, COMPLETE	
52	2-584-896-01	KNOB (JOG)		60	3-254-151-01	SCREW (B2.6), (+) P TAPPING	
53	A-1147-896-A	HEADPHONE BOARD, COMPLETE		61	A-1147-895-A	PANEL (2) BOARD, COMPLETE	
54	3-921-725-01	SCREW (2.6X10), +PWH		62	A-1147-897-A	ANALOG-IN BOARD, COMPLETE	
55	X-2050-997-1	FRONT PANEL SUB ASSY (HPZ9)		63	X-2050-998-2	BUTTON DISC ASSY	
55	X-2055-304-1	FRONT PANEL SUB ASSY (HPZ7: CND)		64	1-866-037-12	HP HOLDER BOARD (EXCEPT US)	
55	X-2055-306-1	FRONT PANEL SUB ASSY (AEP, UK, CET)		64	1-866-037-21	HP HOLDER BOARD (US)	
56	2-584-881-02	BUTTON (POWER)		65	1-866-038-12	LINE IN HOLDER BOARD (EXCEPT US)	
57	X-2055-055-1	BUTTON FUNCTION ASSY		65	1-866-038-21	LINE IN HOLDER BOARD (US)	
58	2-584-888-01	BUTTON (REC)					

7-3. CHASSIS SECTION



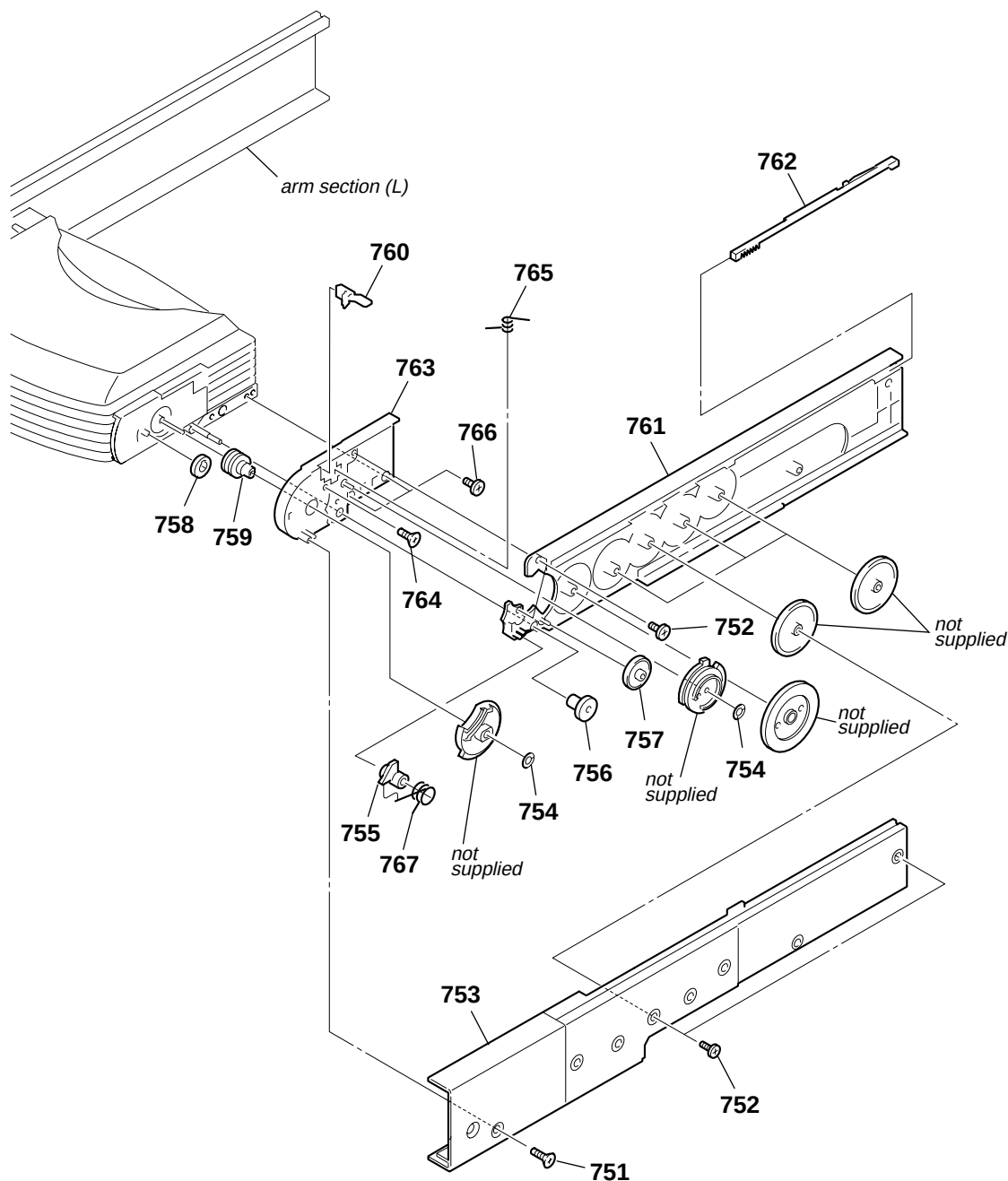
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
101	7-685-645-79	SCREW +BVTP 3X6 TYPE2 N-S		113	A-1147-913-A	POWER BOARD, COMPLETE (AEP, CET, UK)	
102	4-247-752-01	FOOT, RUBBER		113	A-1148-553-A	POWER BOARD, COMPLETE (HPZ7: CND)	
103	A-1147-909-A	THERMISTOR BOARD, COMPLETE		114	1-829-017-11	WIRE (FLAT TYPE) (21 CORE)	
104	2-587-380-02	PANEL (REAR) (US)		△ F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) (4A/125V)	(HPZ7: CND)
104	2-587-380-12	PANEL (REAR) (HPZ9: CND)		△ F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
104	2-591-368-12	PANEL (REAR) (HPZ7: CND)		△ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4AL/250V)	(AEP, UK, CET)
104	2-591-368-22	PANEL (REAR) (AEP, UK, CET)		△ F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) (4A/125V)	(HPZ7: CND)
105	A-1147-903-A	AMP BOARD, COMPLETE (HPZ9)		△ F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
105	A-1147-919-A	AMP BOARD, COMPLETE (AEP, UK, CET)		△ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4AL/250V)	(AEP, UK, CET)
105	A-1148-558-A	AMP BOARD, COMPLETE (HPZ7: CND)		△ F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(HPZ7: CND)
106	1-787-319-11	FAN, DC		△ F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
△ 107	1-769-744-81	CORD, POWER (UK)		△ T901	1-443-682-11	TRANSFORMER, POWER(HPZ7: CND)	
△ 107	1-830-188-11	CORD, POWER (AEP, CET)		△ T901	1-443-683-11	TRANSFORMER, POWER (AEP, UK, CET)	
△ 107	1-830-190-11	CORD, POWER (US, CND)		△ T901	1-443-686-11	TRANSFORMER, POWER(HPZ9)	
108	3-703-244-00	BUSHING (2104), CORD		#4	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S	
109	1-693-684-11	TUNER (FM/AM) (US, CND)		#6	7-685-880-09	SCREW +BVTT 4X6 (S)	
109	1-693-686-11	TUNER (FM/AM) (AEP, UK, CET)					
110	1-828-963-11	WIRE (FLAT TYPE) (11 CORE)					
111	A-1147-899-A	MAIN BOARD, COMPLETE (HPZ9)					
111	A-1147-916-A	MAIN BOARD, COMPLETE (AEP, UK, CET)					
111	A-1148-556-A	MAIN BOARD, COMPLETE (HPZ7: CND)					
112	7-685-647-79	SCREW +BVTP 3X10 TYPE2 N-S					
113	A-1147-891-A	POWER BOARD, COMPLETE (HPZ9)					

7-4. CD MECHANISM DECK SECTION-1 (CDM82C-K6BD83)



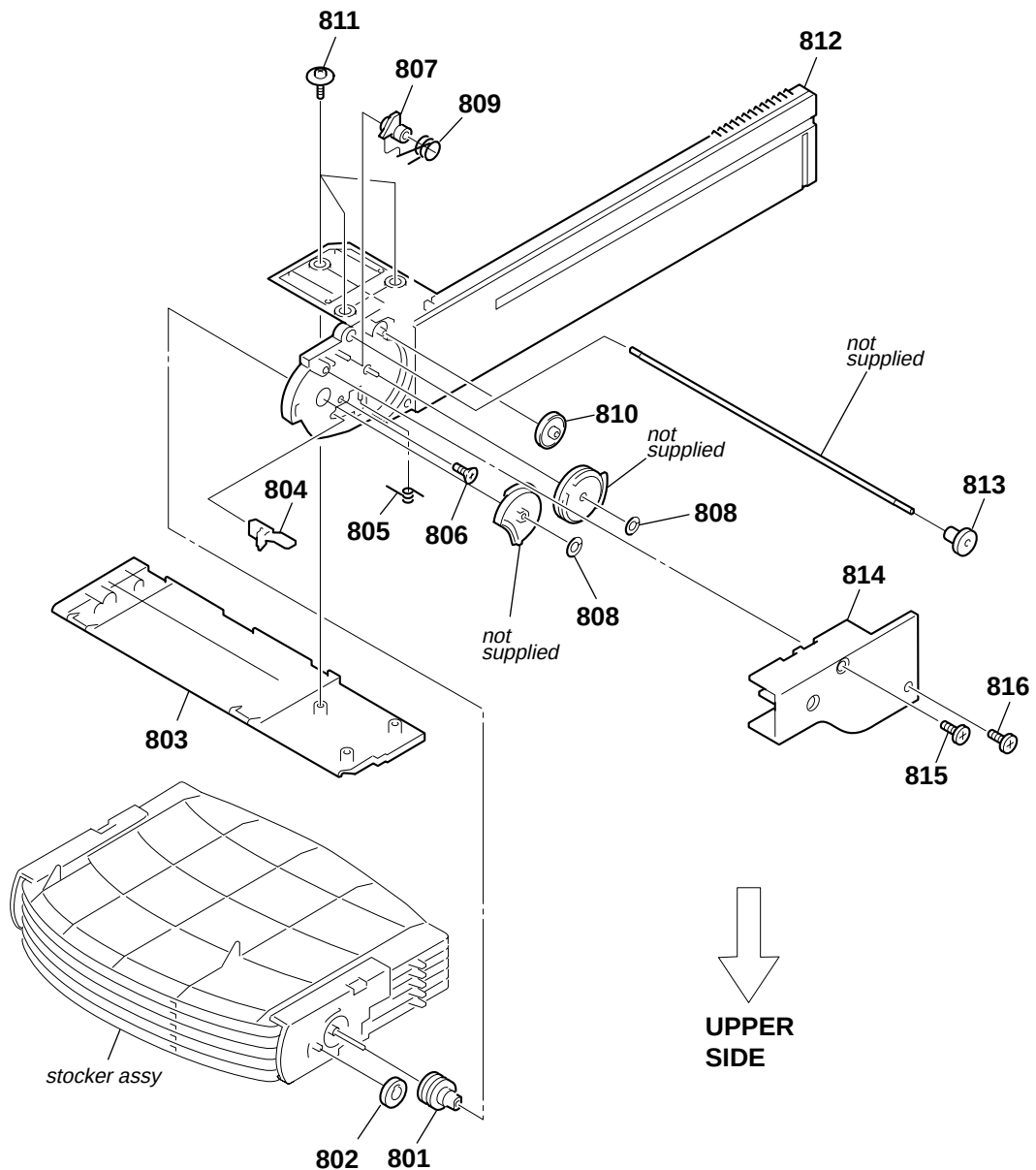
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
701	4-218-253-31	SCREW (M2.6), +BTTP		705	4-255-299-01	WASHER (DIA. 3.5)	
702	4-252-881-01	GEAR (JOINT OP)		706	4-908-618-42	SCREW (+BTP) (2X8)	
703	4-252-843-02	TOP					
704	4-253-811-01	+PTPWH 2X14					

7-5. CD MECHANISM DECK SECTION-2 (CDM82C-K6BD83)



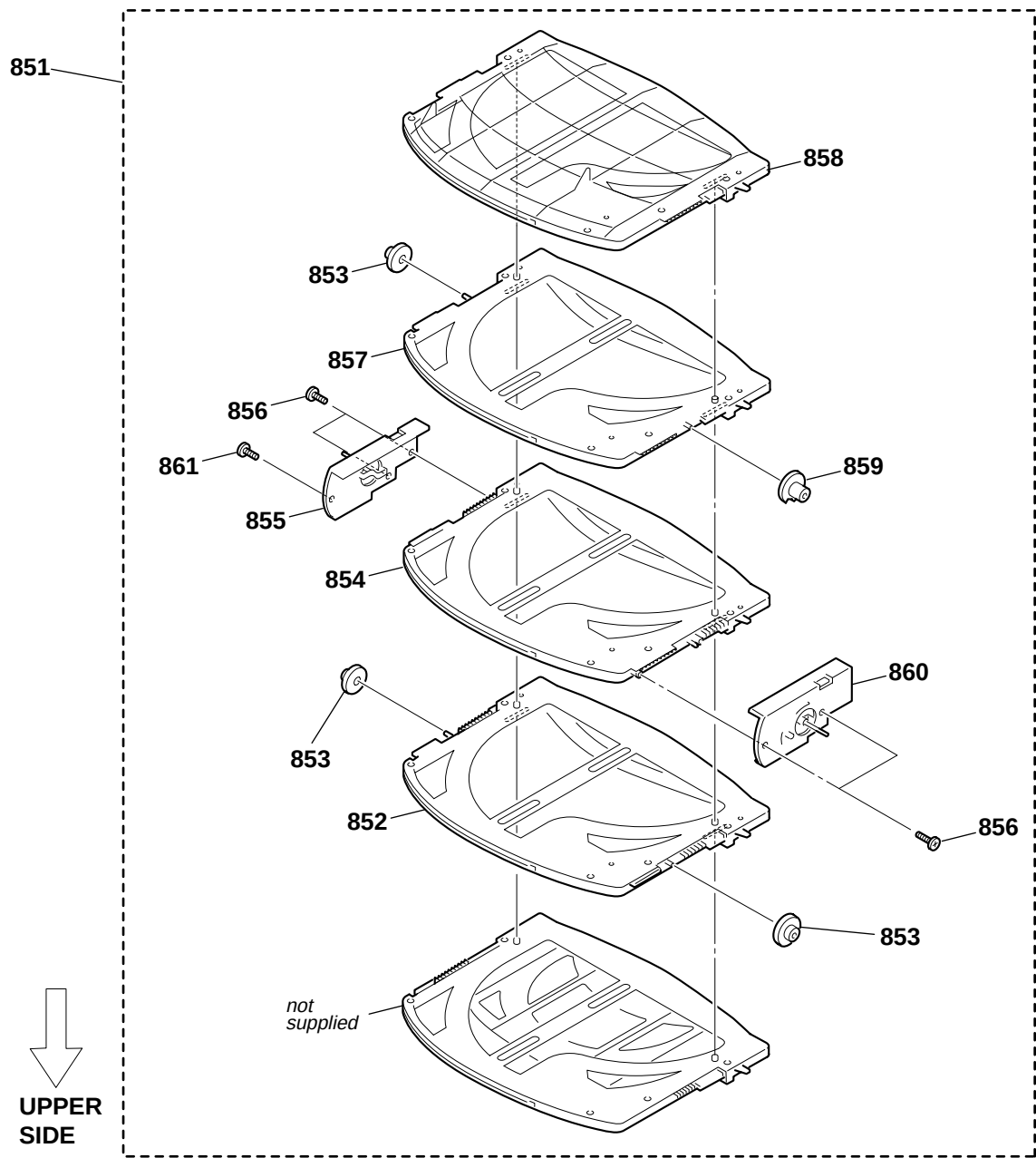
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
751	2-641-430-31	SCREW (2.6), (+) K TAPPING		760	4-252-816-01	LEVER (LOCK R)	
752	4-253-344-01	SCREW (2)		761	4-252-810-01	ARM (R)	
753	4-252-827-05	COVER (R)		762	A-1060-629-A	SLIDER ASSY, SUB	
754	2-021-250-01	WASHER (5.5)		763	4-252-808-01	BASE (A), STOCK	
755	4-255-344-01	LEVER (SUB GEAR BACK R)		764	4-253-564-01	SCREW (1.7)	
756	4-252-806-01	GEAR (STOCK JOINT)		765	4-252-818-01	SPRING (STOCK LOCK R)	
757	4-252-819-01	GEAR (JOINT JUST FRONT), SUB		766	4-218-253-62	SCREW (M2.6), +BTTP	
758	4-252-804-01	GEAR (STOCK PLANET)		767	2-021-898-02	SPR-T (SUB GEAR BACK R)	
759	4-252-802-01	GEAR (STOCK SUN)					

7-6. CD MECHANISM DECK SECTION-3 (CDM82C-K6BD83)



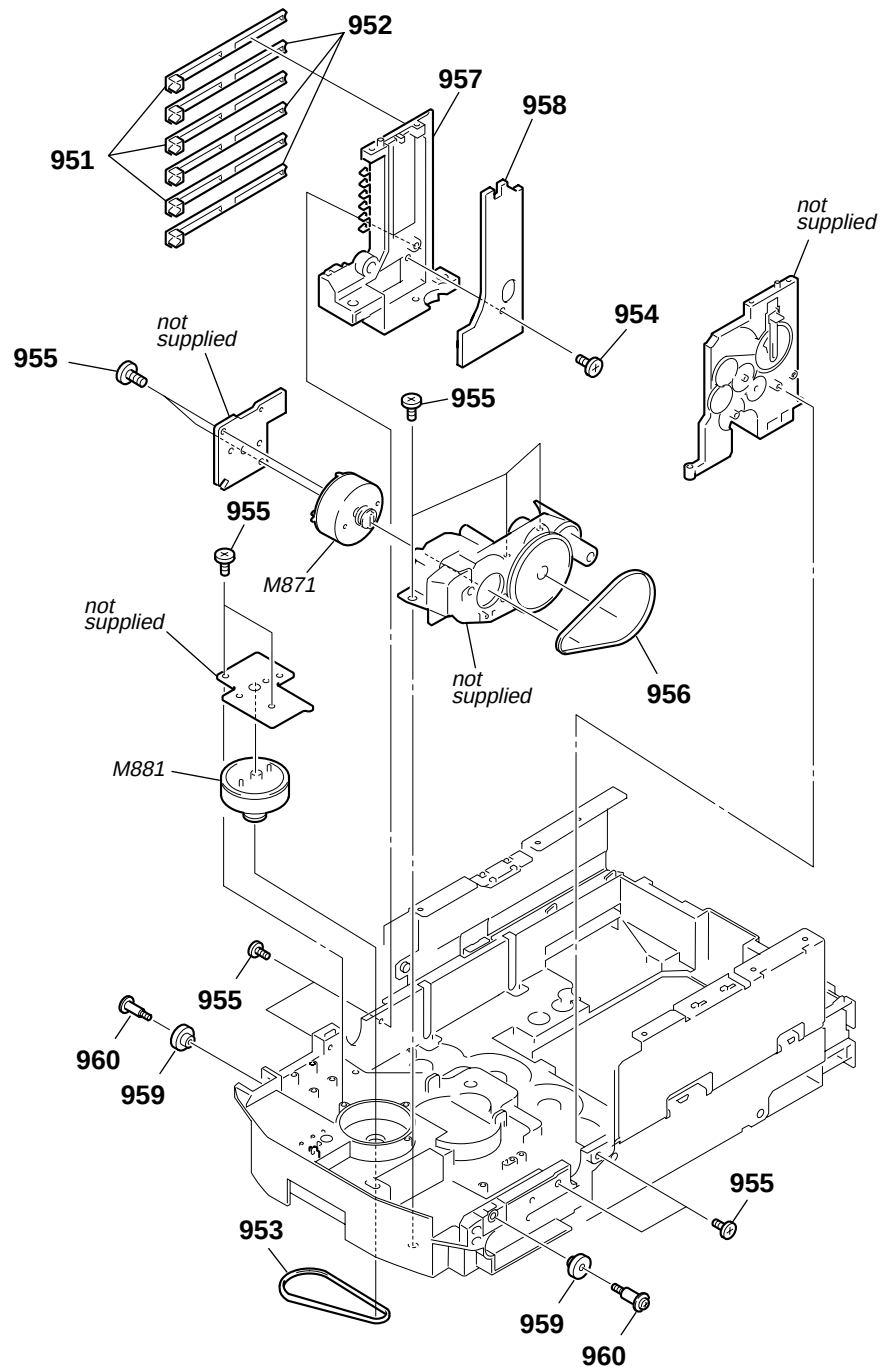
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
801	4-252-802-01	GEAR (STOCK SUN)		810	4-252-819-01	GEAR (JOINT JUST FRONT), SUB	
802	4-252-804-01	GEAR (STOCK PLANET)		811	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
803	4-253-802-02	BASE (B), STOCK		812	4-252-809-03	ARM (L)	
804	4-252-815-01	LEVER (LOCK L)		813	4-252-806-01	GEAR (STOCK JOINT)	
805	4-252-817-01	SPRING (STOCK LOCK L)		814	4-252-826-01	COVER (L)	
806	4-253-564-01	SCREW (1.7)		815	2-641-430-31	SCREW (2.6), (+) K TAPPING	
807	4-255-345-01	LEVER (SUB GEAR BACK L)		816	4-253-344-01	SCREW (2)	
808	2-021-250-01	WASHER (5.5)					
809	4-255-340-02	SPR-T (SUB GEAR BACK L)					

7-7. CD MECHANISM DECK SECTION-4 (CDM82C-K6BD83)



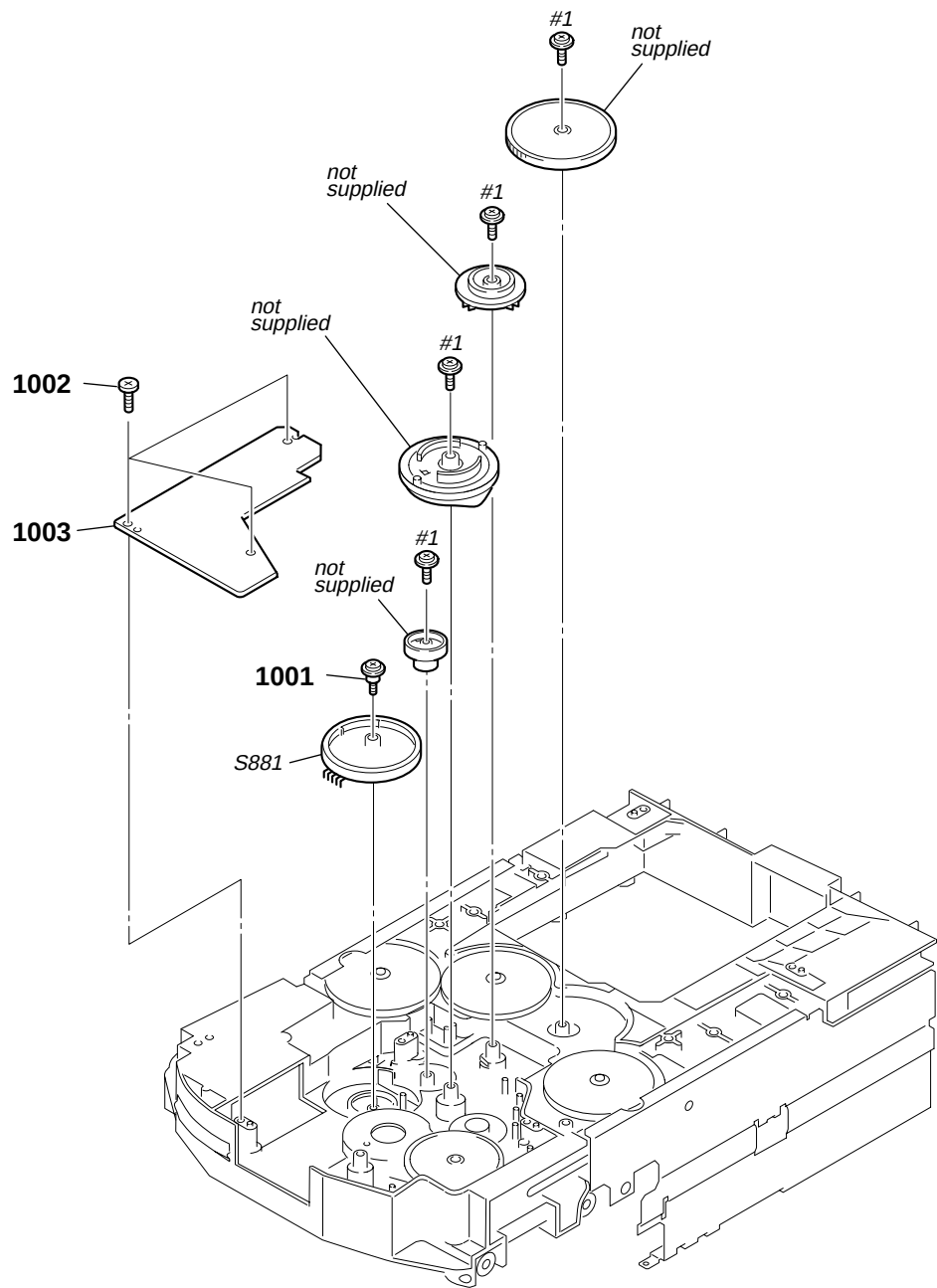
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
851	A-1090-349-A	STOCKER ASSY		857	A-1060-627-A	STOCKER (2) ASSY	
852	A-1060-625-A	STOCKER (4) ASSY		858	A-1060-628-A	STOCKER (1) ASSY	
853	4-252-800-01	GEAR (STOCK LOT SHORT)		859	4-252-801-01	GEAR (STOCK LOT LONG)	
854	A-1060-626-A	STOCKER (3) ASSY		860	4-252-799-04	BOX (R), STOCK	
855	4-252-798-05	BOX (L), STOCK		861	2-149-046-01	SCREW (1.7 BOX), STEP TAPPING	
856	4-253-344-01	SCREW (2)					

7-8. CD MECHANISM DECK SECTION-5 (CDM82C-K6BD83)



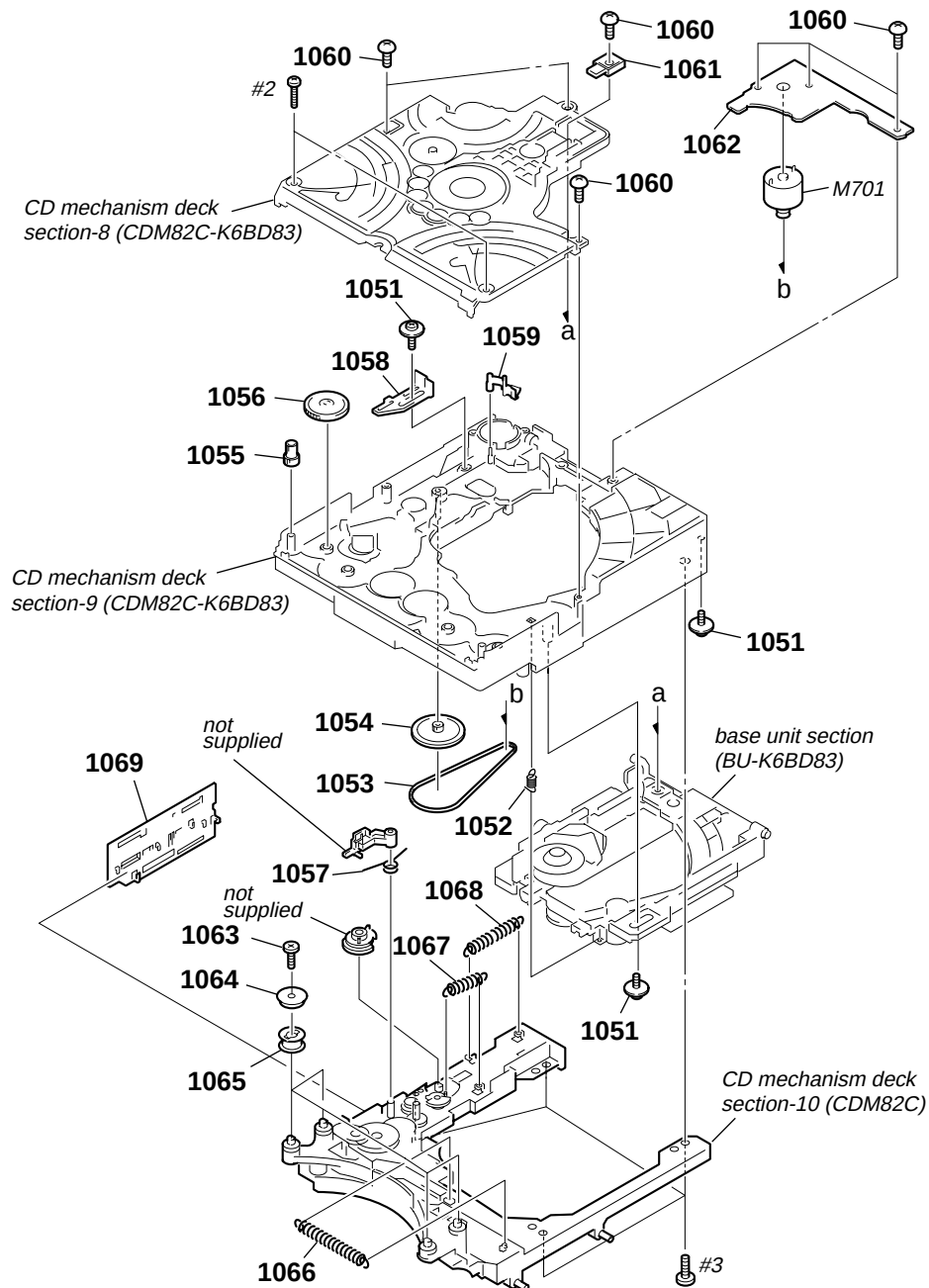
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
951	4-252-829-01	SLIDER (PUSH POPUP1)		957	4-252-828-05	CHASSIS (L), SUB	
952	4-252-830-01	SLIDER (PUSH POPUP2)		958	A-1092-131-A	SW , DISC BOARD, COMPLETE	
953	4-252-883-11	BELT (MOT UD)		959	4-252-884-01	ROLLER	
954	4-218-253-62	SCREW (M2.6), +BTTP		960	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
955	4-218-253-31	SCREW (M2.6), +BTTP					
956	4-252-866-11	BELT (MOT OP)		M871	A-1149-538-A	MOTOR ASSY (LOADING)	
				M881	A-1149-538-A	MOTOR ASSY (ELV)	

7-9. CD MECHANISM DECK SECTION-6 (CDM82C-K6BD83)



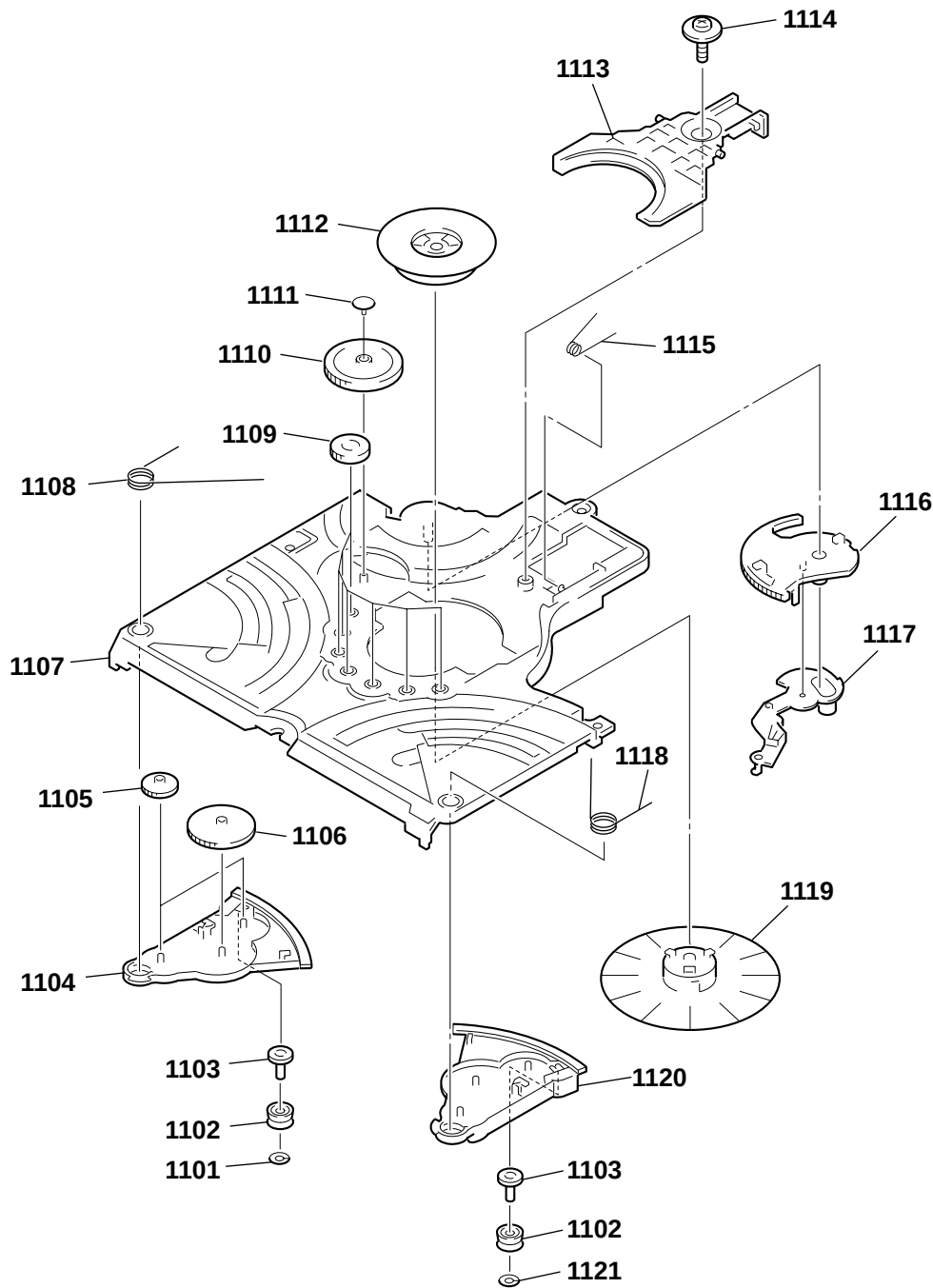
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1001	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING		S881	1-478-706-21	ENCODER, ROTARY	
1002	4-218-253-62	SCREW (M2.6), +BTTP		#1	7-685-902-21	SCREW +PTPWH 2.6X8 (TYPE2)	
1003	A-1119-164-A	RELAY BOARD, COMPLETE					

7-10. CD MECHANISM DECK SECTION-7 (CDM82C-K6BD83)



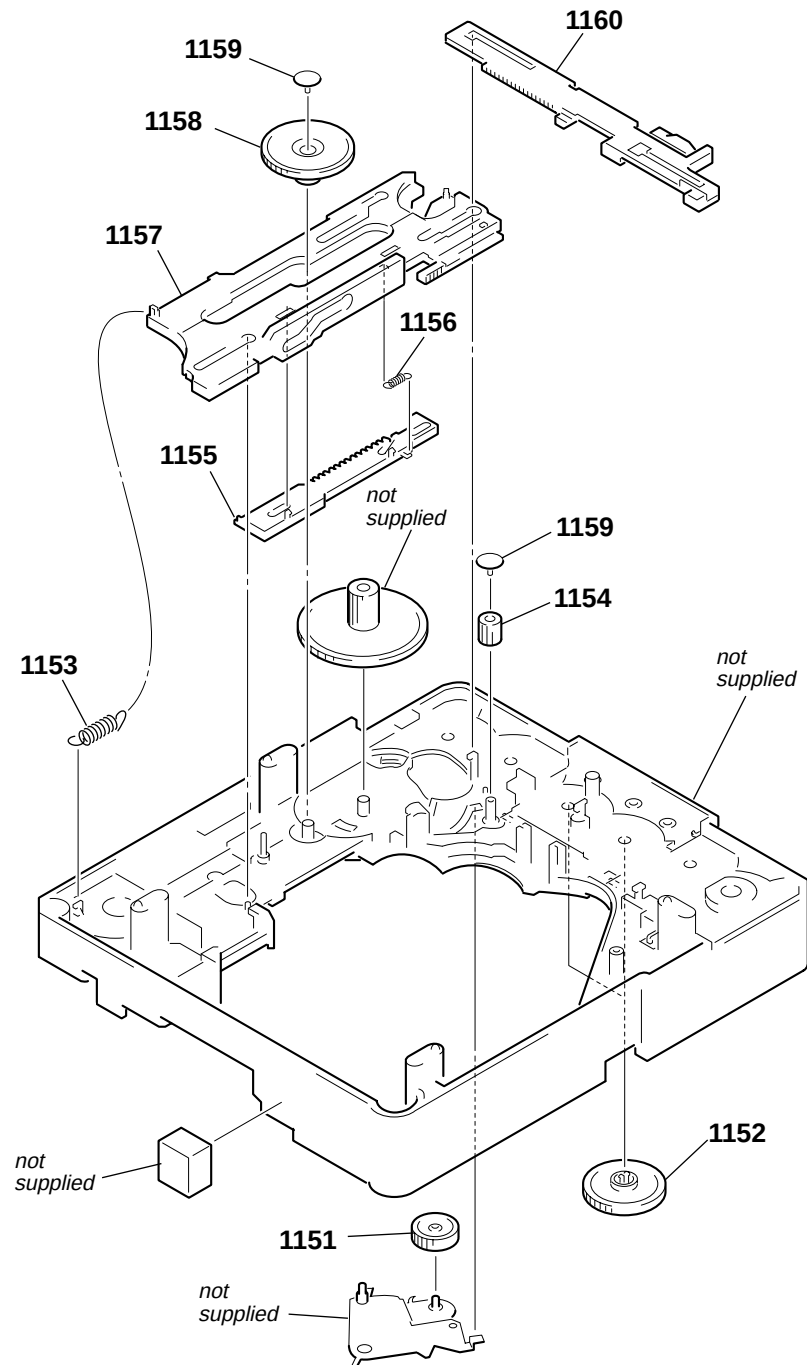
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1051	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING		1062	1-688-337-11	MOTOR BOARD	
1052	2-515-538-01	SPRING (HOLDER DOWN B), COIL		1063	4-253-344-01	SCREW (2)	
1053	4-245-653-11	BELT (MOT)		1064	4-252-904-01	PARASOL	
1054	4-245-662-02	PULLEY (GEAR)		1065	4-252-908-01	ROLLER, RUBBER	
1055	4-245-646-01	GEAR (IDL-F)					
1056	4-245-644-01	GEAR (IDL-D)		1066	4-252-903-01	SPRING (LOWER), TENSION	
1057	4-252-895-01	SPR-T (LOCK)		1067	4-252-898-01	SPR-E (TAKO BACK)	
1058	4-246-203-01	LEVER (RELEASE)		1068	4-252-899-01	SPR-E (PLATE PUSH BACK)	
1059	4-245-630-01	LEVER (SW)		1069	A-1060-631-A	PLATE (PUSH) ASSY	
1060	3-087-053-01	+BVTP2.6 (3CR)		M701	A-1148-845-A	MOTOR ASSY (LOADING)	
1061	4-245-639-01	LEVER (CL UP2)		#2	7-685-106-19	SCREW +P 2X10 TYPE2 NON-SLIT	
				#3	7-685-648-79	SCREW +BV 3X12, TYPE 2, IT-3	

7-11. CD MECHANISM DECK SECTION-8 (CDM82C-K6BD83)



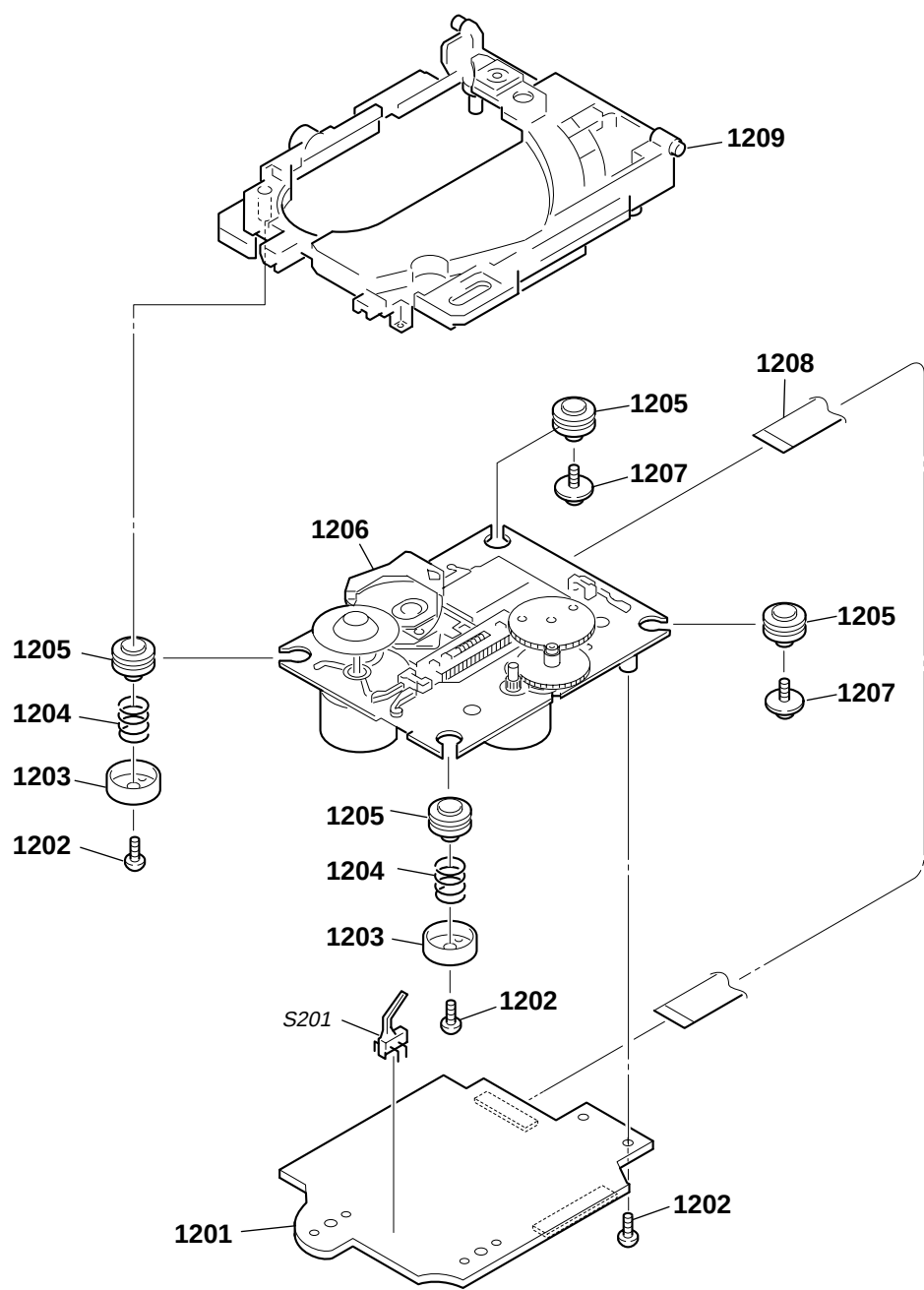
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1101	4-245-627-01	WASHER (6-2.7-0.4)		1112	1-452-925-41	MAGNET ASSY	
1102	4-245-637-11	ROLLER, RUBBER		1113	4-245-638-01	LEVER (CL UP1)	
1103	4-245-649-01	GEAR (IDL-I)		1114	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1104	4-245-657-11	LEVER (LOADING-R)		1115	4-245-636-01	SPR-T CL DOWN	
1105	4-245-647-01	GEAR (IDL-G)					
1106	4-245-648-01	GEAR (IDL-H)		1116	4-245-658-11	LEVER (DISC STOP)	
1107	4-245-655-11	CHASSIS (TOP)		1117	4-245-659-11	LEVER (DISC SENSOR)	
1108	4-245-631-11	SPT-T (LOADING-R)		1118	4-245-632-11	SPR-T (LOADING-L)	
1109	4-245-650-01	GEAR (IDL-J)		1119	X-2021-532-1	CLAMPER 213 ASSY	
1110	4-245-651-11	GEAR (IDL-L)		1120	4-245-656-11	LEVER (LOADING-L)	
1111	4-245-640-01	GEAR (CAP)		1121	4-253-747-01	STOPPER (IDL-I)	

7-12. CD MECHANISM DECK SECTION-9 (CDM82C-K6BD83)



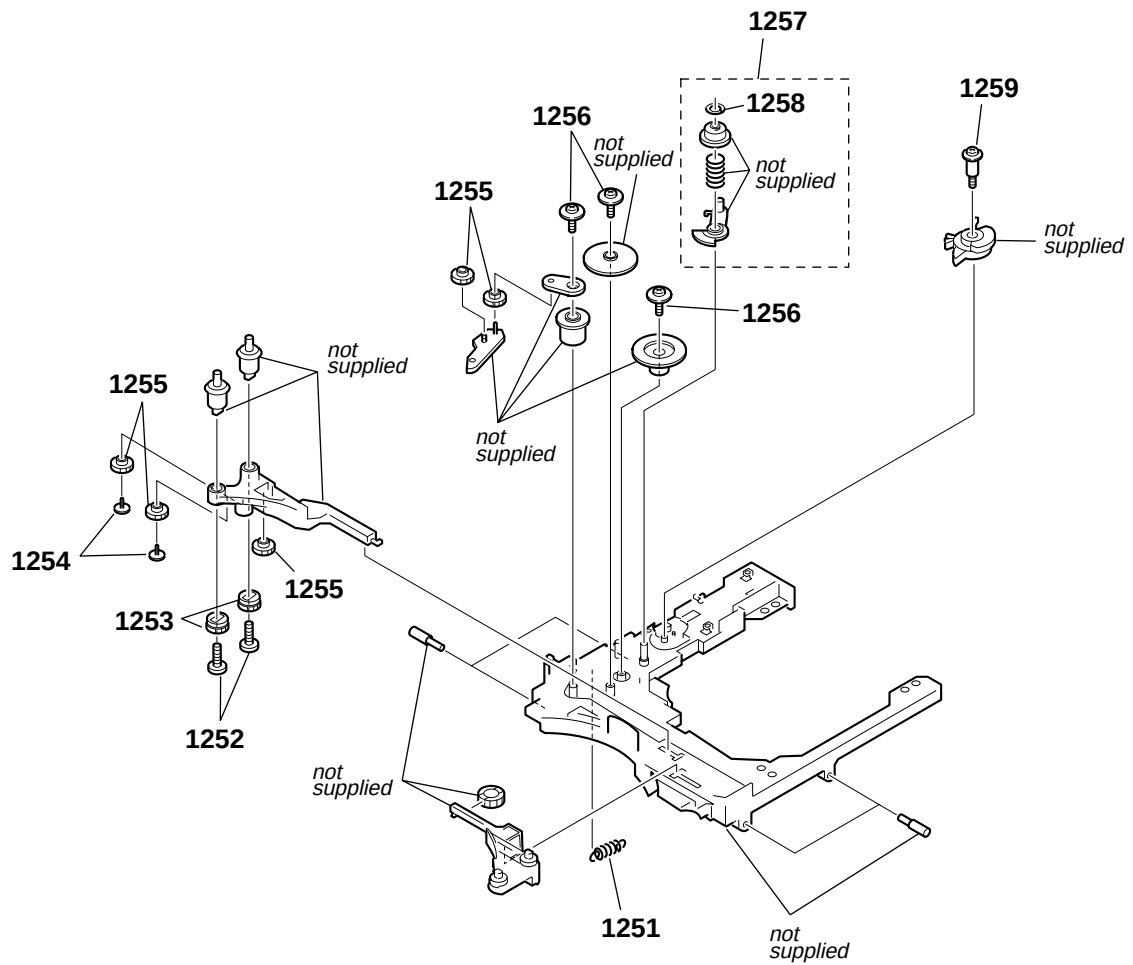
Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1151	4-245-643-01	GEAR (IDL-C)		1156	2-515-534-01	SPRING (DIR BACK), TENSION COIL	
1152	4-245-644-01	GEAR (IDL-D)		1157	4-245-660-11	LEVER (DIR)	
1153	2-515-536-01	SPRING (DIR), TENSION COIL		1158	4-245-641-01	GEAR (IDL-A)	
1154	4-245-629-01	GEAR (BU LOCK)		1159	4-245-640-01	GEAR (CAP)	
1155	4-245-814-01	LEVER (DIR FIRST)		1160	4-245-628-01	LEVER (BU LOCK)	

7-13. BASE UNIT SECTION (BU-K6BD83)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1201	A-1085-381-A	BD BOARD, COMPLETE		△ 1206	A-4735-357-A	OP BASE ASSY (KSM213DHAP/ZRP1)	
1202	3-087-053-01	+BVTP2.6 (3CR)		1207	4-985-672-01	SCREW (+PTPWH M2.6), FLOATING	
1203	4-231-151-01	STOPPER (BU)		1208	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
1204	4-227-045-31	SPRING (INSULATOR), COIL		1209	X-4956-146-1	HOLDER (BU215) ASSY	
1205	4-227-549-11	INSULATOR		S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	

7-14. CD MECHANISM DECK SECTION-10 (CDM82C-K6BD83)



Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
1251	4-252-897-01	SPR-E (LOCK-OUT)		1256	4-992-069-01	SCREW (+PTPWH) (M2) (DIA. 7)	
1252	4-218-253-62	SCREW (M2.6), +BTTP		1257	A-1060-632-A	CLUTCH ASSY	
1253	4-252-907-02	GEAR (PARASOL 12)		1258	2-021-250-01	WASHER (5.5)	
1254	4-245-640-01	GEAR (CAP)		1259	4-239-618-02	SCREW (+PWH, 2X6), STEP TAPPING	
1255	4-252-913-01	GEAR (GOOSENECK GENERAL SMALL)					

SECTION 8

ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- -XX and -X mean standardized parts, so they may have some difference from the original one.
- Items marked “*” are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- RESISTORS
All resistors are in ohms.
METAL: Metal-film resistor.
METAL OXIDE: Metal oxide-film resistor.
F: nonflammable
- CAPACITORS
uF: μ F
COILS
uH: μ H
SEMICONDUCTORS
In each case, u: μ , for example:
uA. . : μ A. . , uPA. . , μ PA. . ,
uPB. . : μ PB. . , uPC. . , μ PC. . ,
uPD. . : μ PD. .
Abbreviation
CND : Canadian model
CET : East European and Russian model

When indicating parts by reference number, please include the board name.

The components identified by mark Δ or dotted line with mark Δ are critical for safety. Replace only with part number specified.

Les composants identifiés par une marque Δ sont critiques pour la sécurité. Ne les remplacer que par une pièce portant le numéro spécifié.

Ref. No.	Part No.	Description	Remark				Ref. No.	Part No.	Description	Remark			
	A-1147-903-A	AMP BOARD, COMPLETE (HPZ9)											
	A-1147-919-A	AMP BOARD, COMPLETE (AEP, UK, CET)					C616	1-164-156-11	CERAMIC CHIP	0.1uF		25V	
	A-1148-558-A	AMP BOARD, COMPLETE (HPZ7: CND)					C617	1-130-471-00	MYLAR	0.001uF	5%	50V	
		*****										(AEP, UK, CET)	
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					C618	1-136-165-00	FILM	0.1uF	5%	50V	
		< CAPACITOR >					C618	1-137-749-11	MYLAR	0.1uF		100V	
							C619	1-136-165-00	FILM	0.1uF	5%	50V	
C501	1-126-964-11	ELECT	10uF	20%	50V							(HPZ7)	
C502	1-162-960-11	CERAMIC CHIP	220PF	10%	50V								
C503	1-126-947-11	ELECT	47uF	20%	35V	C619	1-137-749-11	MYLAR	0.1uF		100V		
C504	1-162-962-11	CERAMIC CHIP	470PF	10%	50V						(HPZ9)		
C505	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V								
			(HPZ9)						< CONNECTOR >				
C505	1-162-945-11	CERAMIC CHIP	22PF	5%	50V	CN601	1-568-830-11	CONNECTOR, FFC 11P					
			(HPZ7)				CNJ991	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
C506	1-126-957-11	ELECT	0.22uF	20%	50V								
C507	1-130-495-00	MYLAR	0.1uF	5%	50V			< DIODE >					
C551	1-126-964-11	ELECT	10uF	20%	50V								
C552	1-162-960-11	CERAMIC CHIP	220PF	10%	50V	D501	6-500-335-01	DIODE MC2838-T112-1					
							D603	8-719-988-61	DIODE 1SS355TE-17				
C553	1-126-947-11	ELECT	47uF	20%	35V	D607	8-719-069-54	DIODE UDZSTE-175.1B					
C554	1-162-962-11	CERAMIC CHIP	470PF	10%	50V	D608	6-500-335-01	DIODE MC2838-T112-1					
C555	1-162-915-11	CERAMIC CHIP	10PF	0.5PF	50V	D609	8-719-000-07	DIODE MC2836					
			(HPZ9)										
C555	1-162-945-11	CERAMIC CHIP	22PF	5%	50V	D610	8-719-988-61	DIODE 1SS355TE-17					
			(HPZ7)				D613	8-719-000-07	DIODE MC2836				
C556	1-126-957-11	ELECT	0.22uF	20%	50V	D901	6-500-360-01	DIODE D10XB20 (HPZ9)					
							D901	8-719-500-56	DIODE D3SBA20 (HPZ7)				
C557	1-130-495-00	MYLAR	0.1uF	5%	50V								
C603	1-130-471-00	MYLAR	0.001uF	5%	50V			< EARTH TERMINAL >					
			(AEP, UK, CET)										
C604	1-126-964-11	ELECT	10uF	20%	50V	EP602	1-537-770-21	TERMINAL BOARD, GROUND					
C605	1-104-658-91	ELECT	100uF	20%	10V								
C606	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V			< IC >					
C607	1-126-964-11	ELECT	10uF	20%	50V	IC601	6-705-620-01	IC STK433-060 (HPZ7: CND)					
C608	1-104-658-91	ELECT	100uF	20%	10V	IC601	6-705-621-01	IC STK433-070 (AEP, UK, CET)					
C609	1-126-961-11	ELECT	2.2uF	20%	50V	IC601	6-706-406-01	IC STK403-090-S (HPZ9)					
C610	1-126-965-91	ELECT	22uF	20%	50V	IC602	6-703-610-01	IC RT8H015C-T112-1					
C611	1-126-965-91	ELECT	22uF	20%	50V								
									< JUMPER RESISTOR >				
C613	1-126-964-11	ELECT	10uF	20%	50V								
C614	1-128-550-11	ELECT	2200uF	20%	50V	JR601	1-216-864-11	SHORT CHIP	0				
			(HPZ7)				JR602	1-216-864-11	SHORT CHIP	0			
C614	1-135-928-31	ELECT	2200uF	20%	63V	JR603	1-216-864-11	SHORT CHIP	0				
			(HPZ9)										
C615	1-128-550-11	ELECT	2200uF	20%	50V			< TRANSISTOR >					
			(HPZ7)										
C615	1-135-928-31	ELECT	2200uF	20%	63V	Q501	6-550-889-01	TRANSISTOR	2SC5938-T112-1B				
			(HPZ9)				Q502	8-729-600-22	TRANSISTOR	2SA1235-F			

C130	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C131	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C230	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C231	1-162-960-11	CERAMIC CHIP	220PF	10%	50V

D812 6-500-848-01 DIODE MC2840-T112-1

J301 1-815-629-11 JACK (ANALOG IN)

R132	1-216-841-91	METAL CHIP	47K	5%	1/10W
R133	1-216-821-11	METAL CHIP	1K	5%	1/10W
R232	1-216-841-91	METAL CHIP	47K	5%	1/10W
R233	1-216-821-11	METAL CHIP	1K	5%	1/10W

HCD-HPZ7/HPZ9

AU-TC

Ref. No.	Part No.	Description	Remark		
	A-1147-906-A	AU-TC BOARD, COMPLETE (US, CND)			
	A-1147-921-A	AU-TC BOARD, COMPLETE (AEP, UK, CET)			

		< CAPACITOR >			
C101	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C102	1-126-964-11	ELECT	10uF	20%	50V
C103	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C104	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C106	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C107	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C109	1-126-964-11	ELECT	10uF	20%	50V
C110	1-126-964-11	ELECT	10uF	20%	50V
C111	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C112	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C113	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C114	1-126-964-11	ELECT	10uF	20%	50V
C115	1-126-964-11	ELECT	10uF	20%	50V
C116	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C117	1-126-964-11	ELECT	10uF	20%	50V
C118	1-126-964-11	ELECT	10uF	20%	50V
C119	1-126-964-11	ELECT	10uF	20%	50V
C120	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C121	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C122	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C123	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C124	1-126-947-11	ELECT	47uF	20%	35V
C125	1-126-965-91	ELECT	22uF	20%	50V
C127	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C139	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		(AEP, UK, CET)			
C201	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C202	1-126-964-11	ELECT	10uF	20%	50V
C203	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C204	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C206	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C207	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C209	1-126-964-11	ELECT	10uF	20%	50V
C210	1-126-964-11	ELECT	10uF	20%	50V
C211	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C212	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C213	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
C214	1-126-964-11	ELECT	10uF	20%	50V
C215	1-126-964-11	ELECT	10uF	20%	50V
C216	1-164-227-11	CERAMIC CHIP	0.022uF	10%	25V
C217	1-126-964-11	ELECT	10uF	20%	50V
C218	1-126-964-11	ELECT	10uF	20%	50V
C219	1-126-964-11	ELECT	10uF	20%	50V
C220	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C221	1-162-960-11	CERAMIC CHIP	220PF	10%	50V
C222	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
C223	1-165-128-11	CERAMIC CHIP	0.22uF		16V
C224	1-126-947-11	ELECT	47uF	20%	35V
C225	1-126-965-91	ELECT	22uF	20%	50V
C227	1-162-927-11	CERAMIC CHIP	100PF	5%	50V
C239	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
		(AEP, UK, CET)			
C317	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V

Ref. No.	Part No.	Description	Remark		
C324	1-162-962-11	CERAMIC CHIP	470PF	10%	50V
C328	1-126-933-11	ELECT	100uF	20%	16V
C360	1-130-479-00	MYLAR	0.0047uF	5%	50V
C361	1-130-479-00	MYLAR	0.0047uF	5%	50V
C362	1-130-487-00	MYLAR	0.022uF	5%	50V
C363	1-130-483-00	MYLAR	0.01uF	5%	50V
C368	1-126-947-11	ELECT	47uF	20%	35V
C371	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C372	1-164-156-11	CERAMIC CHIP	0.1uF		25V
C374	1-130-483-00	MYLAR	0.01uF	5%	50V
C375	1-126-965-91	ELECT	22uF	20%	50V
C381	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C382	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C383	1-126-925-91	ELECT	470uF	20%	10V
C384	1-126-925-91	ELECT	470uF	20%	10V
C385	1-104-658-91	ELECT	100uF	20%	10V
C400	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V
(AEP, UK, CET)					
< CONNECTOR >					
* CN301	1-564-510-11	PLUG, CONNECTOR 7P			
< DIODE >					
D331	8-719-988-61	DIODE 1SS355TE-17			
< EARTH TERMINAL >					
EP301	1-537-770-21	TERMINAL BOARD, GROUND			
< IC >					
IC302	6-708-013-01	IC BD3402AKS2			
< TRANSISTOR >					
Q101	8-729-920-31	TRANSISTOR	DTC343TK		
Q103	8-729-920-31	TRANSISTOR	DTC343TK		
Q104	8-729-920-31	TRANSISTOR	DTC343TK		
Q201	8-729-920-31	TRANSISTOR	DTC343TK		
Q203	8-729-920-31	TRANSISTOR	DTC343TK		
Q306	8-729-600-22	TRANSISTOR	2SA1235-F		
Q307	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q321	8-729-028-54	TRANSISTOR	KTC3205		
Q322	8-729-027-43	TRANSISTOR	DTC114EKA-T146		
Q323	8-729-027-31	TRANSISTOR	DTA124EKA-T146		
< RESISTOR >					
R103	1-216-833-11	METAL CHIP	10K	5%	1/10W
R104	1-216-833-11	METAL CHIP	10K	5%	1/10W
R105	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R106	1-216-841-11	METAL CHIP	47K	5%	1/10W
R107	1-216-841-11	METAL CHIP	47K	5%	1/10W
R108	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R109	1-216-849-11	METAL CHIP	220K	5%	1/10W
R110	1-216-853-11	METAL CHIP	470K	5%	1/10W
R111	1-216-813-11	METAL CHIP	220	5%	1/10W
R112	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R113	1-216-845-11	METAL CHIP	100K	5%	1/10W
R114	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R115	1-216-821-11	METAL CHIP	1K	5%	1/10W

Ref. No.	Part No.	Description				Remark	Ref. No.	Part No.	Description				Remark
R116	1-216-841-11	METAL CHIP	47K	5%	1/10W			A-1085-381-A	BD BOARD, COMPLETE				
R117	1-216-821-11	METAL CHIP	1K	5%	1/10W				*****				
R119	1-216-821-11	METAL CHIP	1K	5%	1/10W				< CAPACITOR >				
R126	1-216-837-11	METAL CHIP	22K	5%	1/10W								
R127	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C101	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
R129	1-216-845-11	METAL CHIP	100K	5%	1/10W		C102	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
R131	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C103	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
							C104	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
R132	1-216-821-11	METAL CHIP	1K	5%	1/10W		C105	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
R133	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R134	1-216-809-11	METAL CHIP	100	5%	1/10W		C107	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
R135	1-216-833-11	METAL CHIP	10K	5%	1/10W		C108	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
R136	1-216-821-11	METAL CHIP	1K	5%	1/10W		C109	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
							C110	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
R203	1-216-833-11	METAL CHIP	10K	5%	1/10W		C111	1-164-230-11	CERAMIC CHIP	220PF	5%	50V	
R204	1-216-833-11	METAL CHIP	10K	5%	1/10W								
R205	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C112	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
R206	1-216-841-11	METAL CHIP	47K	5%	1/10W		C113	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
R207	1-216-841-11	METAL CHIP	47K	5%	1/10W		C131	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
							C132	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R208	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		C133	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R209	1-216-849-11	METAL CHIP	220K	5%	1/10W								
R210	1-216-853-11	METAL CHIP	470K	5%	1/10W		C201	1-128-995-21	ELECT CHIP	100uF	20%	10V	
R211	1-216-813-11	METAL CHIP	220	5%	1/10W		C202	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R212	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		C203	1-128-995-21	ELECT CHIP	100uF	20%	10V	
							C204	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R213	1-216-845-11	METAL CHIP	100K	5%	1/10W		C205	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R214	1-216-825-11	METAL CHIP	2.2K	5%	1/10W								
R215	1-216-821-11	METAL CHIP	1K	5%	1/10W		C206	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R216	1-216-841-11	METAL CHIP	47K	5%	1/10W		C207	1-128-995-21	ELECT CHIP	100uF	20%	10V	
R217	1-216-821-11	METAL CHIP	1K	5%	1/10W		C208	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
							C210	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R219	1-216-821-11	METAL CHIP	1K	5%	1/10W		C213	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R226	1-216-837-11	METAL CHIP	22K	5%	1/10W								
R227	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C214	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R229	1-216-845-11	METAL CHIP	100K	5%	1/10W		C215	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R231	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C217	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
							C218	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R232	1-216-821-11	METAL CHIP	1K	5%	1/10W		C219	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R233	1-216-829-11	METAL CHIP	4.7K	5%	1/10W								
R234	1-216-809-11	METAL CHIP	100	5%	1/10W		C220	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R235	1-216-833-11	METAL CHIP	10K	5%	1/10W		C221	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R236	1-216-821-11	METAL CHIP	1K	5%	1/10W		C222	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
							C223	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R326	1-216-857-11	METAL CHIP	1M	5%	1/10W		C224	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R328	1-216-809-11	METAL CHIP	100	5%	1/10W								
R329	1-216-809-11	METAL CHIP	100	5%	1/10W		C226	1-165-908-11	CERAMIC CHIP	1uF	10%	10V	
R345	1-216-825-11	METAL CHIP	2.2K	5%	1/10W		C227	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R346	1-216-829-11	METAL CHIP	4.7K	5%	1/10W		C228	1-128-590-11	ELECT CHIP	100uF	20%	6.3V	
							C230	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
R347	1-216-817-11	METAL CHIP	470	5%	1/10W		C232	1-164-360-11	CERAMIC CHIP	0.1uF		16V	
R349	1-216-825-11	METAL CHIP	2.2K	5%	1/10W								
R350	1-216-837-11	METAL CHIP	22K	5%	1/10W		C251	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
R351	1-216-833-11	METAL CHIP	10K	5%	1/10W		C252	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
R358	1-249-393-11	CARBON	10	5%	1/4W		C253	1-164-315-11	CERAMIC CHIP	470PF	5%	50V	
							C254	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V	
R359	1-216-837-11	METAL CHIP	22K	5%	1/10W		C256	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
R360	1-216-793-11	METAL CHIP	4.7	5%	1/10W								
< TRANSFORMER >								C257	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
T301	1-433-372-31	TRANSFORMER, BIAS OSCILLATION						C258	1-164-230-11	CERAMIC CHIP	220PF	5%	50V

							C259	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
							C260	1-117-863-11	CERAMIC CHIP	0.47uF	10%	6.3V	
							C261	1-162-970-11	CERAMIC CHIP	0.01uF	10%	25V	
							C264	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V	
							C265	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
							C267	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	
							C268	1-162-919-11	CERAMIC CHIP	22PF	5%	50V	

HCD-HPZ7/HPZ9

BD

ELV MOTOR

HEADPHONE

Ref. No.	Part No.	Description	Remark		
C269	1-126-208-21	ELECT CHIP	47uF	20%	4V
C270	1-126-208-21	ELECT CHIP	47uF	20%	4V
C271	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V
C272	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C273	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C275	1-162-910-11	CERAMIC CHIP	5PF	0.25PF	50V
C291	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C292	1-164-315-11	CERAMIC CHIP	470PF	5%	50V
C301	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C302	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C303	1-137-710-11	CERAMIC CHIP	10uF	20%	6.3V
C321	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
C322	1-115-156-11	CERAMIC CHIP	1uF		10V
C323	1-128-995-21	ELECT CHIP	100uF	20%	10V
C401	1-128-396-11	ELECT CHIP	470uF	20%	10V
C404	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C405	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C406	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C424	1-164-360-11	CERAMIC CHIP	0.1uF		16V
C451	1-162-968-11	CERAMIC CHIP	0.0047uF	10%	50V
C452	1-162-966-11	CERAMIC CHIP	0.0022uF	10%	50V
< CONNECTOR >					
CN102	1-770-706-11	CONNECTOR, FFC/FPC 23P			
CN301	1-770-425-11	CONNECTOR, FFC/FPC 16P			
< IC >					
IC201	8-753-239-32	IC CXD3014-201R			
IC202	6-700-394-01	IC BA25BC0FP-E2			
IC402	6-705-808-01	IC BA5947FM-E2			
< TRANSISTOR >					
Q321	6-551-120-01	TRANSISTOR	2SA2119K		
< RESISTOR >					
R101	1-216-809-11	METAL CHIP	100	5%	1/10W
R102	1-216-809-11	METAL CHIP	100	5%	1/10W
R103	1-216-809-11	METAL CHIP	100	5%	1/10W
R104	1-216-809-11	METAL CHIP	100	5%	1/10W
R105	1-216-809-11	METAL CHIP	100	5%	1/10W
R107	1-216-809-11	METAL CHIP	100	5%	1/10W
R108	1-216-809-11	METAL CHIP	100	5%	1/10W
R109	1-216-809-11	METAL CHIP	100	5%	1/10W
R110	1-216-809-11	METAL CHIP	100	5%	1/10W
R111	1-216-809-11	METAL CHIP	100	5%	1/10W
R112	1-216-809-11	METAL CHIP	100	5%	1/10W
R113	1-216-809-11	METAL CHIP	100	5%	1/10W
R114	1-216-864-11	SHORT CHIP	0		
R201	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R202	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R203	1-216-295-91	SHORT CHIP	0		
R207	1-216-295-91	SHORT CHIP	0		
R249	1-216-841-11	METAL CHIP	47K	5%	1/10W
R250	1-216-857-11	METAL CHIP	1M	5%	1/10W
R252	1-216-833-11	METAL CHIP	10K	5%	1/10W
R253	1-216-821-11	METAL CHIP	1K	5%	1/10W
R254	1-216-833-11	METAL CHIP	10K	5%	1/10W

Ref. No.	Part No.	Description	Remark		
R255	1-216-821-11	METAL CHIP	1K	5%	1/10W
R256	1-216-837-11	METAL CHIP	22K	5%	1/10W
R257	1-216-853-11	METAL CHIP	470K	5%	1/10W
R258	1-216-849-11	METAL CHIP	220K	5%	1/10W
R259	1-216-833-11	METAL CHIP	10K	5%	1/10W
R260	1-216-864-11	SHORT CHIP	0		
R265	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R266	1-216-821-11	METAL CHIP	1K	5%	1/10W
R267	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
R268	1-216-833-11	METAL CHIP	10K	5%	1/10W
R269	1-216-809-11	METAL CHIP	100	5%	1/10W
R270	1-216-817-11	METAL CHIP	470	5%	1/10W
R271	1-216-857-11	METAL CHIP	1M	5%	1/10W
R272	1-500-445-21	FERRITE, EMI (SMD) (2012)			
R275	1-216-809-11	METAL CHIP	100	5%	1/10W
R276	1-216-841-11	METAL CHIP	47K	5%	1/10W
R277	1-216-809-11	METAL CHIP	100	5%	1/10W
R278	1-216-809-11	METAL CHIP	100	5%	1/10W
R279	1-216-809-11	METAL CHIP	100	5%	1/10W
R291	1-216-809-11	METAL CHIP	100	5%	1/10W
R292	1-216-809-11	METAL CHIP	100	5%	1/10W
R321	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R322	1-216-789-11	METAL CHIP	2.2	5%	1/10W
R323	1-216-864-11	SHORT CHIP	0		
R324	1-216-845-11	METAL CHIP	100K	5%	1/10W
R325	1-216-864-11	SHORT CHIP	0		
R326	1-216-864-11	SHORT CHIP	0		
R401	1-216-295-91	SHORT CHIP	0		
R421	1-216-864-11	SHORT CHIP	0		
R423	1-216-833-11	METAL CHIP	10K	5%	1/10W
R451	1-216-837-11	METAL CHIP	22K	5%	1/10W
R452	1-216-833-11	METAL CHIP	10K	5%	1/10W
< VIBRATOR >					
X202	1-767-408-21	VIBRATOR, CRYSTAL (16.9344MHz)			

ELV MOTOR BOARD					

A-1147-896-A HEADPHONE BOARD, COMPLETE					

< CAPACITOR >					
C136	1-162-974-11	CERAMIC CHIP	0.01uF		50V
C236	1-162-974-11	CERAMIC CHIP	0.01uF		50V
< JACK >					
J321	1-815-629-11	JACK (㊤)			

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
	A-1147-899-A	MAIN BOARD, COMPLETE (HPZ9)		C391	1-164-156-11	CERAMIC CHIP 0.1uF	25V
	A-1147-916-A	MAIN BOARD, COMPLETE (AEP, UK, CET)		C392	1-164-156-11	CERAMIC CHIP 0.1uF	25V
	A-1148-556-A	MAIN BOARD, COMPLETE (HPZ7: CND)		C393	1-164-156-11	CERAMIC CHIP 0.1uF	25V
		*****		C394	1-164-156-11	CERAMIC CHIP 0.1uF	25V
				C395	1-164-156-11	CERAMIC CHIP 0.1uF	25V
	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S					
		< CAPACITOR >		C396	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C108	1-162-974-11	CERAMIC CHIP 0.01uF	50V	C397	1-164-156-11	CERAMIC CHIP 0.1uF	25V
C128	1-126-964-11	ELECT 10uF 20%	50V	C401	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V (AEP, UK, CET)
C131	1-162-962-11	CERAMIC CHIP 470PF 10%	50V			< CONNECTOR >	
C134	1-130-495-00	MYLAR 0.1uF 5%	50V	CN302	1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	
C135	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	CN303	1-564-709-11	PIN, CONNECTOR (SMALL TYPE) 7P	
				CN304	1-779-560-21	CONNECTOR, FFC (LIF (NON-ZIF)) 23P	
C136	1-162-974-11	CERAMIC CHIP 0.01uF	50V	CN305	1-784-731-11	CONNECTOR, FFC 9P (US, CND)	
C137	1-126-965-91	ELECT 22uF 20%	50V	CN305	1-568-854-11	CONNECTOR, FFC 11P (AEP, UK, CET)	
C138	1-162-960-11	CERAMIC CHIP 220PF 10%	50V				
C208	1-162-974-11	CERAMIC CHIP 0.01uF	50V	CN306	1-564-506-11	PLUG, CONNECTOR 3P	
C228	1-126-964-11	ELECT 10uF 20%	50V	CN307	1-784-784-11	CONNECTOR, FFC 23P	
				CN308	1-564-705-11	PIN, CONNECTOR (SMALL TYPE) 3P	
C231	1-162-962-11	CERAMIC CHIP 470PF 10%	50V	* CN309	1-564-508-11	PLUG, CONNECTOR 5P	
C234	1-130-495-00	MYLAR 0.1uF 5%	50V	CN311	1-568-838-11	CONNECTOR, FFC 21P	
C235	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V				
C236	1-162-974-11	CERAMIC CHIP 0.01uF	50V	CN312	1-784-786-11	CONNECTOR, FFC 25P	
C237	1-126-965-91	ELECT 22uF 20%	50V	CN313	1-568-830-11	CONNECTOR, FFC 11P	
				* CN314	1-764-334-11	PLUG, CONNECTOR 11P	
C238	1-162-960-11	CERAMIC CHIP 220PF 10%	50V			< DIODE >	
C300	1-164-156-11	CERAMIC CHIP 0.1uF	25V	D301	8-719-988-61	DIODE 1SS355TE-17	
C301	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	D302	6-500-335-01	DIODE MC2838-T112-1	
C302	1-162-919-11	CERAMIC CHIP 22PF 5%	50V	D303	6-500-335-01	DIODE MC2838-T112-1	
C303	1-164-156-11	CERAMIC CHIP 0.1uF	25V	D304	8-719-988-61	DIODE 1SS355TE-17	
				D306	8-719-000-07	DIODE MC2836	
C304	1-126-916-11	ELECT 1000uF 20%	6.3V				
C305	1-164-156-11	CERAMIC CHIP 0.1uF	25V	D308	6-500-848-01	DIODE MC2840-T112-1	
C306	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	D311	8-719-063-79	DIODE 1N4002B	
C307	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	D312	8-719-063-79	DIODE 1N4002B	
C308	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	D313	6-500-335-01	DIODE MC2838-T112-1	
				D314	8-719-988-61	DIODE 1SS355TE-17	
C310	1-164-156-11	CERAMIC CHIP 0.1uF	25V				
C314	1-126-925-91	ELECT 470uF 20%	10V	D315	6-500-848-01	DIODE MC2840-T112-1	
C315	1-126-925-91	ELECT 470uF 20%	10V	D316	8-719-000-07	DIODE MC2836	
C316	1-126-925-91	ELECT 470uF 20%	10V	D317	8-719-988-61	DIODE 1SS355TE-17	
C319	1-126-925-91	ELECT 470uF 20%	10V	D323	8-719-063-79	DIODE 1N4002B	
				D332	6-500-335-01	DIODE MC2838-T112-1	
C321	1-126-925-91	ELECT 470uF 20%	10V				
C322	1-126-964-11	ELECT 10uF 20%	50V	D333	8-719-063-79	DIODE 1N4002B	
C323	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V			< EARTH TERMINAL >	
C325	1-126-925-91	ELECT 470uF 20%	10V	EP201	1-537-770-21	TERMINAL BOARD, GROUND	
C327	1-126-964-11	ELECT 10uF 20%	50V			< FERRITE BEAD >	
C329	1-126-963-11	ELECT 4.7uF 20%	50V	FB301	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C330	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	FB302	1-216-864-11	SHORT CHIP 0	
C333	1-162-968-11	CERAMIC CHIP 0.0047uF 10%	50V	FB307	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C334	1-162-970-11	CERAMIC CHIP 0.01uF 10%	25V	FB308	1-500-445-21	FERRITE, EMI (SMD) (2012)	
C335	1-126-176-11	ELECT 220uF 20%	10V			< IC >	
				IC304	8-759-701-59	IC NJM78M09FA	
C338	1-164-156-11	CERAMIC CHIP 0.1uF	25V	IC305	8-759-071-48	IC TA7807S	
C339	1-126-926-11	ELECT 1000uF 20%	10V	IC306	6-805-889-01	IC M30624MGP-A56FPU0	
C340	1-164-156-11	CERAMIC CHIP 0.1uF	25V	IC308	6-703-546-01	IC TA7804LS	
C340	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V	IC309	6-701-680-01	IC PST3629NR	
C354	1-107-826-11	CERAMIC CHIP 0.1uF 10%	16V				
C355	1-126-176-11	ELECT 220uF 20%	10V				
C356	1-104-658-91	ELECT 100uF 20%	10V				
C357	1-164-156-11	CERAMIC CHIP 0.1uF	25V				
C386	1-126-933-11	ELECT 100uF 20%	16V				
C389	1-126-964-11	ELECT 10uF 20%	50V				
C390	1-126-927-11	ELECT 2200uF 20%	10V				

HCD-HPZ7/HPZ9

MAIN

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
IC310	8-759-231-57	IC TA7810S				R306	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< IC >				R307	1-216-833-11	METAL CHIP	10K	5%	1/10W (US, CND)
J302	8-749-019-25	IC TOTX141 (CD DIGITAL OUT)				R308	1-216-833-11	METAL CHIP	10K	5%	1/10W (US, CND)
		< JUMPER RESISTOR >				R311	1-216-841-11	METAL CHIP	47K	5%	1/10W
JR001	1-216-864-11	SHORT CHIP	0			R312	1-216-821-11	METAL CHIP	1K	5%	1/10W
JR002	1-216-864-11	SHORT CHIP	0			R313	1-216-813-11	METAL CHIP	220	5%	1/10W
		< COIL >				R314	1-216-841-11	METAL CHIP	47K	5%	1/10W
L102	1-422-009-13	COIL, AIR-CORE				R315	1-216-821-11	METAL CHIP	1K	5%	1/10W
L202	1-422-009-13	COIL, AIR-CORE				R316	1-216-833-11	METAL CHIP	10K	5%	1/10W
		< TRANSISTOR >				R317	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q302	8-729-036-86	TRANSISTOR	KTC3203Y-AT			R318	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q308	8-729-037-13	TRANSISTOR	KTA1271Y			R319	1-216-837-11	METAL CHIP	22K	5%	1/10W
Q309	8-729-027-52	TRANSISTOR	DTC124EKA-T146			R320	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q310	8-729-037-13	TRANSISTOR	KTA1271Y			R321	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q311	8-729-027-52	TRANSISTOR	DTC124EKA-T146			R322	1-216-829-11	METAL CHIP	4.7K	5%	1/10W
Q312	8-729-037-13	TRANSISTOR	KTA1271Y			R324	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q313	8-729-027-43	TRANSISTOR	DTC114EKA-T146			R325	1-216-833-11	METAL CHIP	10K	5%	1/10W
Q314	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R327	1-216-821-11	METAL CHIP	1K	5%	1/10W
Q315	8-729-037-13	TRANSISTOR	KTA1271Y			R330	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q316	8-729-027-46	TRANSISTOR	DTC114YKA-T146			R331	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q319	8-729-037-13	TRANSISTOR	KTA1271Y			R332	1-216-841-11	METAL CHIP	47K	5%	1/10W
Q320	8-729-120-28	TRANSISTOR	2SC1623-L5L6			R333	1-216-841-11	METAL CHIP	47K	5%	1/10W
		< RESISTOR >				R334	1-216-841-11	METAL CHIP	47K	5%	1/10W
R101	1-215-890-11	METAL OXIDE	470	5%	2W (HPZ7)	R335	1-216-841-11	METAL CHIP	47K	5%	1/10W
R101	1-215-892-11	METAL OXIDE	1K	5%	2W (HPZ9)	R336	1-216-841-11	METAL CHIP	47K	5%	1/10W
R102	1-260-103-11	CARBON	2.2K	5%	1/2W (HPZ9)	R337	1-216-841-11	METAL CHIP	47K	5%	1/10W
R118	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R338	1-216-841-11	METAL CHIP	47K	5%	1/10W
R120	1-216-837-11	METAL CHIP	22K	5%	1/10W	R340	1-216-841-11	METAL CHIP	47K	5%	1/10W
R121	1-260-300-11	CARBON	4.7	5%	1/2W	R342	1-216-841-11	METAL CHIP	47K	5%	1/10W
R123	1-216-821-11	METAL CHIP	1K	5%	1/10W	R343	1-216-841-11	METAL CHIP	47K	5%	1/10W
R124	1-216-845-11	METAL CHIP	100K	5%	1/10W	R344	1-216-841-11	METAL CHIP	47K	5%	1/10W
R128	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	△ R348	1-212-857-00	FUSIBLE	10	5%	1/4W
R201	1-215-890-11	METAL OXIDE	470	5%	2W (HPZ7)	R352	1-247-791-91	CARBON	22	5%	1/4W
R201	1-215-892-11	METAL OXIDE	1K	5%	2W (HPZ9)	R353	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R202	1-260-103-11	CARBON	2.2K	5%	1/2W (HPZ9)	R354	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R218	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R355	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R220	1-216-837-11	METAL CHIP	22K	5%	1/10W	R356	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R221	1-260-300-11	CARBON	4.7	5%	1/2W	R357	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R223	1-216-821-11	METAL CHIP	1K	5%	1/10W	R365	1-216-825-11	METAL CHIP	2.2K	5%	1/10W
R224	1-216-845-11	METAL CHIP	100K	5%	1/10W	R366	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (US, CND)
R228	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	R367	1-216-821-11	METAL CHIP	1K	5%	1/10W (US, CND)
R301	1-216-845-11	METAL CHIP	100K	5%	1/10W	R367	1-216-829-11	METAL CHIP	4.7K	5%	1/10W (AEP, UK, CET)
R302	1-247-807-31	CARBON	100	5%	1/4W	R368	1-216-841-11	METAL CHIP	47K	5%	1/10W
R303	1-216-833-11	METAL CHIP	10K	5%	1/10W	R369	1-216-833-11	METAL CHIP	10K	5%	1/10W
R304	1-216-837-11	METAL CHIP	22K	5%	1/10W	R370	1-216-833-11	METAL CHIP	10K	5%	1/10W
R305	1-216-841-11	METAL CHIP	47K	5%	1/10W	R372	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R373	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R374	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R375	1-216-817-11	METAL CHIP	470	5%	1/10W
						R381	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R382	1-216-821-11	METAL CHIP	1K	5%	1/10W
						R385	1-216-841-11	METAL CHIP	47K	5%	1/10W
						R386	1-216-841-11	METAL CHIP	47K	5%	1/10W

MAIN

MOTOR

Ref. No.	Part No.	Description	Remark	Ref. No.	Part No.	Description	Remark
R387	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R456	1-216-809-11	METAL CHIP	100 5% 1/10W
R388	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R457	1-216-809-11	METAL CHIP	100 5% 1/10W
R389	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R458	1-216-809-11	METAL CHIP	100 5% 1/10W
R390	1-216-841-11	METAL CHIP	47K 5% 1/10W	R459	1-216-809-11	METAL CHIP	100 5% 1/10W
R391	1-216-841-11	METAL CHIP	47K 5% 1/10W	R460	1-216-809-11	METAL CHIP	100 5% 1/10W
R392	1-216-841-11	METAL CHIP	47K 5% 1/10W	R461	1-216-809-11	METAL CHIP	100 5% 1/10W
R393	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R463	1-216-809-11	METAL CHIP	100 5% 1/10W
R394	1-216-825-11	METAL CHIP	2.2K 5% 1/10W	R465	1-216-809-11	METAL CHIP	100 5% 1/10W
R400	1-216-809-11	METAL CHIP	100 5% 1/10W	R466	1-216-809-11	METAL CHIP	100 5% 1/10W
R401	1-216-809-11	METAL CHIP	100 5% 1/10W	R467	1-216-809-11	METAL CHIP	100 5% 1/10W
R402	1-216-809-11	METAL CHIP	100 5% 1/10W	R468	1-216-809-11	METAL CHIP	100 5% 1/10W
R403	1-216-809-11	METAL CHIP	100 5% 1/10W	R469	1-216-809-11	METAL CHIP	100 5% 1/10W
R404	1-216-833-11	METAL CHIP	10K 5% 1/10W	R470	1-216-809-11	METAL CHIP	100 5% 1/10W
R405	1-216-809-11	METAL CHIP	100 5% 1/10W	R471	1-216-809-11	METAL CHIP	100 5% 1/10W
R406	1-216-809-11	METAL CHIP	100 5% 1/10W	R472	1-216-809-11	METAL CHIP	100 5% 1/10W
R407	1-216-809-11	METAL CHIP	100 5% 1/10W	R474	1-216-857-11	METAL CHIP	1M 5% 1/10W
R409	1-216-833-11	METAL CHIP	10K 5% 1/10W	R475	1-216-809-11	METAL CHIP	100 5% 1/10W
R411	1-216-849-11	METAL CHIP	220K 5% 1/10W	R476	1-216-809-11	METAL CHIP	100 5% 1/10W
R412	1-216-821-11	METAL CHIP	1K 5% 1/10W	R477	1-216-809-11	METAL CHIP	100 5% 1/10W
R413	1-216-864-11	SHORT CHIP	0	R478	1-216-809-11	METAL CHIP	100 5% 1/10W
R417	1-216-833-11	METAL CHIP	10K 5% 1/10W	R479	1-216-809-11	METAL CHIP	100 5% 1/10W
R418	1-216-809-11	METAL CHIP	100 5% 1/10W	R480	1-216-809-11	METAL CHIP	100 5% 1/10W
R419	1-216-809-11	METAL CHIP	100 5% 1/10W	R481	1-216-809-11	METAL CHIP	100 5% 1/10W
R420	1-216-841-11	METAL CHIP	47K 5% 1/10W	R482	1-216-809-11	METAL CHIP	100 5% 1/10W
R421	1-216-809-11	METAL CHIP	100 5% 1/10W	R483	1-216-809-11	METAL CHIP	100 5% 1/10W
R422	1-216-809-11	METAL CHIP	100 5% 1/10W	R484	1-216-809-11	METAL CHIP	100 5% 1/10W
R423	1-216-809-11	METAL CHIP	100 5% 1/10W	R485	1-216-809-11	METAL CHIP	100 5% 1/10W
R424	1-216-809-11	METAL CHIP	100 5% 1/10W	R486	1-216-809-11	METAL CHIP	100 5% 1/10W
R425	1-216-809-11	METAL CHIP	100 5% 1/10W	R488	1-216-809-11	METAL CHIP	100 5% 1/10W
R426	1-216-809-11	METAL CHIP	100 5% 1/10W	R489	1-216-809-11	METAL CHIP	100 5% 1/10W
R427	1-216-809-11	METAL CHIP	100 5% 1/10W	R490	1-216-809-11	METAL CHIP	100 5% 1/10W
R428	1-216-809-11	METAL CHIP	100 5% 1/10W	R491	1-216-809-11	METAL CHIP	100 5% 1/10W
R429	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R492	1-216-809-11	METAL CHIP	100 5% 1/10W
R430	1-216-829-11	METAL CHIP	4.7K 5% 1/10W	R494	1-216-809-11	METAL CHIP	100 5% 1/10W
R431	1-216-809-11	METAL CHIP	100 5% 1/10W	R495	1-216-809-11	METAL CHIP	100 5% 1/10W
R432	1-216-809-11	METAL CHIP	100 5% 1/10W	R497	1-216-809-11	METAL CHIP	100 5% 1/10W
R433	1-216-809-11	METAL CHIP	100 5% 1/10W	< RELAY >			
R434	1-216-809-11	METAL CHIP	100 5% 1/10W	RY301	1-755-307-11	RELAY	
R435	1-216-809-11	METAL CHIP	100 5% 1/10W	< TERMINAL >			
R436	1-216-809-11	METAL CHIP	100 5% 1/10W	TM301	1-780-275-11	TERMINAL BOARD, PUSH (4P) (SPEAKER)	
R437	1-216-809-11	METAL CHIP	100 5% 1/10W	< VIBRATOR >			
R439	1-216-809-11	METAL CHIP	100 5% 1/10W	X301	1-579-463-11	VIBRATOR, CRYSTAL (32.768kHz)	
R440	1-216-809-11	METAL CHIP	100 5% 1/10W	X302	1-795-482-11	VIBRATOR, CERAMIC (16MHz)	
R441	1-216-809-11	METAL CHIP	100 5% 1/10W	*****			
R442	1-216-809-11	METAL CHIP	100 5% 1/10W	1-688-337-11	MOTOR BOARD		
R443	1-216-809-11	METAL CHIP	100 5% 1/10W	*****			
R444	1-216-809-11	METAL CHIP	100 5% 1/10W	< CAPACITOR >			
R445	1-216-809-11	METAL CHIP	100 5% 1/10W	C705	1-162-306-11	CERAMIC 0.01uF 20% 16V	
R446	1-216-809-11	METAL CHIP	100 5% 1/10W	C711	1-126-964-11	ELECT 10uF 20% 50V	
R447	1-216-809-11	METAL CHIP	100 5% 1/10W	< CONNECTOR >			
R448	1-216-809-11	METAL CHIP	100 5% 1/10W	CN701	1-785-333-11	PIN, CONNECTOR (LIGHT ANGLE) 7P	
R449	1-216-809-11	METAL CHIP	100 5% 1/10W				
R450	1-216-809-11	METAL CHIP	100 5% 1/10W				
R451	1-216-809-11	METAL CHIP	100 5% 1/10W				
R452	1-216-809-11	METAL CHIP	100 5% 1/10W				
R453	1-216-809-11	METAL CHIP	100 5% 1/10W				
R454	1-216-809-11	METAL CHIP	100 5% 1/10W				
R455	1-216-809-11	METAL CHIP	100 5% 1/10W				

HCD-HPZ7/HPZ9

Ver. 1.4

MOTOR	MOTOR LOD	PANEL (1)
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Ref. No.	Part No.	Description	Remark			
< DIODE >						
D701	8-719-109-92	DIODE RD6.2ESB1				
< IC >						
IC701	8-759-598-69	IC BA6956AN				
< RESISTOR >						
R701	1-249-415-11	CARBON	680	5%	1/4W	
R702	1-247-807-31	CARBON	100	5%	1/4W	
< SWITCH >						
S701	1-762-951-21	SWITCH, PUSH (OUT)				
S702	1-762-951-21	SWITCH, PUSH (CHUCK)				

MOTOR LOD BOARD						

A-1147-894-A PANEL (1) BOARD, COMPLETE						

4-249-151-01 HOLDER, FL TUBE						
4-249-984-01 FILTER (FL TUBE)						
< CAPACITOR >						
C805	1-124-261-00	ELECT	10uF	20%	50V	
C820	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C821	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C822	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C823	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C824	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C825	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C826	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C827	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C828	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C829	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C830	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C831	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C832	1-126-964-11	ELECT	10uF	20%	50V	
C833	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C834	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V	
C835	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
C836	1-162-971-11	CERAMIC CHIP	0.001uF	10%	50V	
C837	1-107-826-11	CERAMIC CHIP	0.1uF	10%	16V	
C838	1-162-927-11	CERAMIC CHIP	100PF	5%	50V	
< CONNECTOR >						
CN802	1-564-704-11	PIN, CONNECTOR (SMALL TYPE) 2P				
< DIODE >						
D801	8-719-063-92	DIODE SLR325MC-M-T31-NP (CD ▷▢▢)				
D802	8-719-063-92	DIODE SLR325MC-M-T31-NP (TUNER/BAND)				
D803	8-719-063-92	DIODE SLR325MC-M-T31-NP (TAPE ▷▢)				
D804	8-719-063-91	DIODE SLR325DC-P-T32 (DSGX)				
D805	8-719-063-91	DIODE SLR325DC-P-T32 (DISC1)				
D806	8-719-063-91	DIODE SLR325DC-P-T32 (DISC2)				

Ref. No.	Part No.	Description	Remark		
D807	8-719-063-91	DIODE SLR325DC-P-T32 (DISC3)			
D808	8-719-063-91	DIODE SLR325DC-P-T32 (DISC4)			
D809	8-719-063-91	DIODE SLR325DC-P-T32 (DISC5)			
D811	8-719-063-93	DIODE SLR325VC-N-T32 (STANDBY)			
D814	8-719-063-79	DIODE 1N4002B			
< FLUORESCENT INDICATOR TUBE >					
FL701	1-519-808-21	INDICATOR TUBE, FLUORESCENT			
< IC >					
IC801	8-759-643-83	IC uPD16315GB-3BS			
IC802	6-600-446-01	IC RPM7240-H18			
< TRANSISTOR >					
Q800	8-729-600-22	TRANSISTOR 2SA1235-F			
Q805	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q806	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q807	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q808	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q809	8-729-027-43	TRANSISTOR DTC114EKA-T146			
Q811	8-729-027-43	TRANSISTOR DTC114EKA-T146			
< RESISTOR >					
R801	1-216-813-11	METAL CHIP 220 5%	1/10W		
R802	1-216-813-11	METAL CHIP 220 5%	1/10W		
R803	1-216-813-11	METAL CHIP 220 5%	1/10W		
R804	1-216-813-11	METAL CHIP 220 5%	1/10W		
R805	1-216-817-11	METAL CHIP 470 5%	1/10W		
R806	1-216-809-11	METAL CHIP 100 5%	1/10W		
R807	1-216-813-11	METAL CHIP 220 5%	1/10W		
R808	1-216-813-11	METAL CHIP 220 5%	1/10W		
R809	1-216-817-11	METAL CHIP 470 5%	1/10W		
R810	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R811	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R812	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R813	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R814	1-216-825-11	METAL CHIP 2.2K 5%	1/10W		
R815	1-216-829-11	METAL CHIP 4.7K 5%	1/10W		
R817	1-216-813-11	METAL CHIP 220 5%	1/10W		
R818	1-216-813-11	METAL CHIP 220 5%	1/10W		
R819	1-216-813-11	METAL CHIP 220 5%	1/10W		
R820	1-216-813-11	METAL CHIP 220 5%	1/10W		
R821	1-216-817-11	METAL CHIP 470 5%	1/10W		
R822	1-216-809-11	METAL CHIP 100 5%	1/10W		
R823	1-216-813-11	METAL CHIP 220 5%	1/10W		
R824	1-216-813-11	METAL CHIP 220 5%	1/10W		
R825	1-216-817-11	METAL CHIP 470 5%	1/10W		
R826	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R827	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R828	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R829	1-216-821-11	METAL CHIP 1K 5%	1/10W		
R830	1-216-825-11	METAL CHIP 2.2K 5%	1/10W		
R831	1-216-829-11	METAL CHIP 4.7K 5%	1/10W		
R832	1-216-833-11	METAL CHIP 10K 5%	1/10W		
R845	1-216-809-11	METAL CHIP 100 5%	1/10W		
R846	1-216-809-11	METAL CHIP 100 5%	1/10W		
R847	1-216-809-11	METAL CHIP 100 5%	1/10W		

PANEL (1)

PANEL (2)

POWER

Ref. No.	Part No.	Description	Remark			Ref. No.	Part No.	Description	Remark		
R848	1-216-809-11	METAL CHIP	100	5%	1/10W			< SWITCH >			
R849	1-216-805-11	METAL CHIP	47	5%	1/10W	S721	1-762-875-21	SWITCH, KEYBOARD			
R850	1-216-805-11	METAL CHIP	47	5%	1/10W			(PLAY MODE/TUNING MODE)			
R851	1-216-805-11	METAL CHIP	47	5%	1/10W	S722	1-762-875-21	SWITCH, KEYBOARD (REPEAT/FM MODE)			
R852	1-216-805-11	METAL CHIP	47	5%	1/10W	S723	1-762-875-21	SWITCH, KEYBOARD (CD SYNC)			
R853	1-216-805-11	METAL CHIP	47	5%	1/10W	S724	1-762-875-21	SWITCH, KEYBOARD (REC PAUSE/START)			
						S725	1-762-875-21	SWITCH, KEYBOARD (ILLUMINATION)			
R854	1-216-833-11	METAL CHIP	10K	5%	1/10W	*****					
R855	1-216-817-11	METAL CHIP	470	5%	1/10W						
R857	1-216-845-11	METAL CHIP	100K	5%	1/10W	A-1147-891-A	POWER BOARD, COMPLETE (HPZ9)				
R858	1-216-853-11	METAL CHIP	470K	5%	1/10W	A-1147-913-A	POWER BOARD, COMPLETE (AEP, UK, CET)				
R859	1-216-845-11	METAL CHIP	100K	5%	1/10W	A-1148-553-A	POWER BOARD, COMPLETE (HPZ7: CND)				

R860	1-216-845-11	METAL CHIP	100K	5%	1/10W						
R862	1-216-809-11	METAL CHIP	100	5%	1/10W			< CAPACITOR >			
R863	1-216-809-11	METAL CHIP	100	5%	1/10W	C901	1-162-974-11	CERAMIC CHIP	0.01uF		50V
R864	1-216-809-11	METAL CHIP	100	5%	1/10W	C902	1-126-964-11	ELECT	10uF	20%	50V
R876	1-216-809-11	METAL CHIP	100	5%	1/10W	C903	1-162-974-11	CERAMIC CHIP	0.01uF		50V
						C904	1-126-964-11	ELECT	10uF	20%	50V
R877	1-216-821-11	METAL CHIP	1K	5%	1/10W	C910	1-126-943-11	ELECT	2200uF	20%	25V
R878	1-216-821-11	METAL CHIP	1K	5%	1/10W						
		< SWITCH >				C916	1-126-944-11	ELECT	3300uF	20%	25V
S701	1-762-875-21	SWITCH, KEYBOARD (I/⏻)				C919	1-126-767-11	ELECT	1000uF	20%	16V
S702	1-762-875-21	SWITCH, KEYBOARD (▲)				C921	1-126-963-11	ELECT	4.7uF	20%	50V
S703	1-762-875-21	SWITCH, KEYBOARD (DISC SKIP/EX-CHANGE)				C922	1-126-965-91	ELECT	22uF	20%	50V
S704	1-762-875-21	SWITCH, KEYBOARD (DISC1)				C923	1-162-964-11	CERAMIC CHIP	0.001uF	10%	50V
S705	1-762-875-21	SWITCH, KEYBOARD (DISC2)									(AEP, UK, CET)
S706	1-762-875-21	SWITCH, KEYBOARD (DISC3)						< CONNECTOR >			
S707	1-762-875-21	SWITCH, KEYBOARD (DISC4)				* CN902	1-764-333-11	PLUG, CONNECTOR 10P			
S708	1-762-875-21	SWITCH, KEYBOARD (DISC5)				CN905	1-564-321-00	PIN, CONNECTOR (3.96mm PITCH) 2P			
S711	1-762-875-21	SWITCH, KEYBOARD (DSGX)						< DIODE >			
S712	1-762-875-21	SWITCH, KEYBOARD (TUNER/BAND)				D902	8-719-063-79	DIODE	1N4002B		
S713	1-762-875-21	SWITCH, KEYBOARD (CD ▷⏮)				D903	8-719-063-79	DIODE	1N4002B		
S714	1-762-875-21	SWITCH, KEYBOARD (TAPE ▷)				D904	8-719-063-79	DIODE	1N4002B		
S715	1-762-875-21	SWITCH, KEYBOARD (FUNCTION)				D905	8-719-063-79	DIODE	1N4002B		
S716	1-762-875-21	SWITCH, KEYBOARD (CANCEL)				D906	8-719-063-79	DIODE	1N4002B		
S717	1-762-875-21	SWITCH, KEYBOARD (□ →)				D907	8-719-063-79	DIODE	1N4002B		
S718	1-762-875-21	SWITCH, KEYBOARD (□ +)				D908	8-719-063-79	DIODE	1N4002B		
S719	1-762-875-21	SWITCH, KEYBOARD (TUNE →)				D909	8-719-063-79	DIODE	1N4002B		
S720	1-762-875-21	SWITCH, KEYBOARD (TUNE +)				D910	8-719-063-79	DIODE	1N4002B		
S803	1-479-195-11	ENCODER (VOLUME)				D911	8-719-988-61	DIODE	1SS355TE-17		
S804	1-478-061-11	ENCODER, ROTARY (PUSH ENTER)				D912	8-719-063-79	DIODE	1N4002B		
*****						D913	8-719-063-79	DIODE	1N4002B		
A-1147-895-A	PANEL (2) BOARD, COMPLETE					D914	8-719-063-79	DIODE	1N4002B		
	*****					D915	8-719-063-79	DIODE	1N4002B		
		< RESISTOR >				D916	6-500-335-01	DIODE	MC2838-T112-1		
R833	1-216-813-11	METAL CHIP	220	5%	1/10W	D917	8-719-083-87	DIODE	UDZSTE-1733B		
R834	1-216-813-11	METAL CHIP	220	5%	1/10W	D918	8-719-069-54	DIODE	UDZSTE-175.1B		
R835	1-216-813-11	METAL CHIP	220	5%	1/10W			< FUSE HOLDER >			
R836	1-216-813-11	METAL CHIP	220	5%	1/10W	FH901	1-533-233-31	FUSE HOLDER			
R837	1-216-817-11	METAL CHIP	470	5%	1/10W	FH902	1-533-233-31	FUSE HOLDER			
R838	1-216-809-11	METAL CHIP	100	5%	1/10W	FH911	1-533-233-31	FUSE HOLDER			
R839	1-216-813-11	METAL CHIP	220	5%	1/10W	FH912	1-533-233-31	FUSE HOLDER			
R840	1-216-813-11	METAL CHIP	220	5%	1/10W	FH913	1-533-233-31	FUSE HOLDER (US, CND)			
R841	1-216-817-11	METAL CHIP	470	5%	1/10W	FH923	1-533-233-31	FUSE HOLDER (US, CND)			

HCD-HPZ7/HPZ9

POWER

RELAY

SW (A)

SW (B)

SW (D)

SW, DISC

THERMISTOR

Ref. No.	Part No.	Description	Remark			
< TRANSISTOR >						
Q901	8-729-037-03	TRANSISTOR	KTA1266GR-AT			
< RESISTOR >						
R901	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R902	1-216-821-11	METAL CHIP	1K	5%	1/10W	
R903	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
△ R904	1-219-512-22	METAL	2.2M	5%	1/2W	
(US, CND)						
R906	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R908	1-216-837-11	METAL CHIP	22K	5%	1/10W	
R909	1-216-833-11	METAL CHIP	10K	5%	1/10W	
R910	1-216-809-11	METAL CHIP	100	5%	1/10W	
R911	1-216-809-11	METAL CHIP	100	5%	1/10W	
R912	1-216-829-11	METAL CHIP	4.7K	5%	1/10W	
△ R913	1-208-737-51	FUSIBLE	2.2	5%	1/4W	
△ R914	1-219-591-11	FUSIBLE	0.1	5%	1/2W	
△ R915	1-219-121-11	FUSIBLE	0.22	5%	1/4W	
< RELAY >						
△ RY901	1-755-276-11	RELAY, POWER				
< TRANSFORMER >						
△ T902	1-439-779-11	TRANSFORMER, POWER (AEP, UK, CET)				
△ T902	1-439-781-11	TRANSFORMER, POWER (US, CND)				

A-1119-164-A		RELAY BOARD, COMPLETE				

< CAPACITOR >						
C802	1-126-786-11	ELECT	47uF	20%	16V	
C821	1-126-933-11	ELECT	100uF	20%	16V	
C841	1-162-306-11	CERAMIC	0.01uF	20%	16V	
C851	1-162-306-11	CERAMIC	0.01uF	20%	16V	
< CONNECTOR >						
CN801	1-568-864-11	CONNECTOR, FFC 21P				
CN802	1-568-951-11	PIN, CONNECTOR 2P				
CN805	1-506-468-11	PIN, CONNECTOR 3P				
* CN807	1-568-934-11	PIN, CONNECTOR 7P				
< DIODE >						
D801	8-719-109-92	DIODE RD6.2ESB1				
D811	8-719-921-42	DIODE MTZJ-5.1A				
< IC >						
IC801	8-759-598-69	IC BA6956AN				
IC811	8-759-598-69	IC BA6956AN				
< RESISTOR >						
R801	1-249-413-11	CARBON	470	5%	1/4W	
R802	1-247-807-31	CARBON	100	5%	1/4W	
R811	1-249-413-11	CARBON	470	5%	1/4W	
R812	1-247-807-31	CARBON	100	5%	1/4W	
R851	1-249-425-11	CARBON	4.7K	5%	1/4W	
R852	1-249-429-11	CARBON	10K	5%	1/4W	

Ref. No.	Part No.	Description	Remark			
R853	1-249-425-11	CARBON	4.7K	5%	1/4W	
R854	1-249-433-11	CARBON	22K	5%	1/4W	
R855	1-249-425-11	CARBON	4.7K	5%	1/4W	
R856	1-249-437-11	CARBON	47K	5%	1/4W	
R857	1-249-425-11	CARBON	4.7K	5%	1/4W	
R858	1-249-429-11	CARBON	10K	5%	1/4W	
R859	1-249-425-11	CARBON	4.7K	5%	1/4W	
R860	1-249-433-11	CARBON	22K	5%	1/4W	
R861	1-249-425-11	CARBON	4.7K	5%	1/4W	
R862	1-249-437-11	CARBON	47K	5%	1/4W	

A-4751-595-A SW (A) BOARD, COMPLETE						

< SWITCH >						
S811	1-786-289-31	SWITCH, DETECTION (OPEN)				
S831	1-786-289-31	SWITCH, DETECTION (PUSH-CLOSE)				

A-4751-596-A SW (B) BOARD, COMPLETE						

< SWITCH >						
S821	1-786-084-21	SWITCH, DETECTION				
(LOADING POSITION/CLOSE)						

A-4751-598-A SW (D) BOARD, COMPLETE						

< SWITCH >						
S851	1-786-382-21	SWITCH, PUSH (1 KEY) (12cm)				

A-1092-131-A SW , DISC BOARD, COMPLETE						

< SWITCH >						
S861	1-771-495-21	SWITCH, PUSH (1 KEY) (DISC1)				
S862	1-771-495-21	SWITCH, PUSH (1 KEY) (DISC2)				
S863	1-771-495-21	SWITCH, PUSH (1 KEY) (DISC3)				
S864	1-771-495-21	SWITCH, PUSH (1 KEY) (DISC4)				
S865	1-771-495-21	SWITCH, PUSH (1 KEY) (DISC5)				

A-1147-909-A THERMISTOR BOARD, COMPLETE						

< THERMISTOR (POSITIVE) >						
THP822	1-807-796-11	THERMISTOR				

MISCELLANEOUS						

10	1-796-352-61	DECK, MECHANICAL (CMAL5Z225A)				
64	1-866-037-12	HP HOLDER BOARD (EXCEPT US)				
64	1-866-037-21	HP HOLDER BOARD (US)				
65	1-866-038-12	LINE IN HOLDER BOARD (EXCEPT US)				
65	1-866-038-21	LINE IN HOLDER BOARD (US)				

<u>Ref. No.</u>	<u>Part No.</u>	<u>Description</u>	<u>Remark</u>
106	1-787-319-11	FAN, DC	
△ 107	1-769-744-81	CORD, POWER (UK)	
△ 107	1-830-188-11	CORD, POWER (AEP, CET)	
△ 107	1-830-190-11	CORD, POWER (US, CND)	
109	1-693-684-11	TUNER (FM/AM) (US, CND)	
109	1-693-686-11	TUNER (FM/AM) (AEP, UK, CET)	
110	1-828-963-11	WIRE (FLAT TYPE) (11 CORE)	
114	1-829-017-11	WIRE (FLAT TYPE) (21 CORE)	
1112	1-452-925-41	MAGNET ASSY	
△ 1206	A-4735-357-A	OP BASE ASSY (KSM213DHAP/ZRP1)	
1208	1-827-992-11	WIRE (FLAT TYPE) (16 CORE)	
△ F901	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) (4A/125V)	(HPZ7: CND)
△ F901	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
△ F901	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4AL/250V)	(AEP, UK, CET)
△ F902	1-533-452-12	FUSE, GLASS TUBE (DIA. 5) (4A/125V)	(HPZ7: CND)
△ F902	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
△ F902	1-533-471-12	FUSE, GLASS TUBE (DIA. 5) (T4AL/250V)	(AEP, UK, CET)
△ F903	1-533-451-12	FUSE, GLASS TUBE (DIA. 5) (3.15A/125V)	(HPZ7: CND)
△ F903	1-533-454-12	FUSE, GLASS TUBE (DIA. 5) (6.3A/125V)	(HPZ9)
M701	A-1148-845-A	MOTOR ASSY (LOADING)	
M871	A-1149-538-A	MOTOR ASSY (LOADING)	
M881	A-1149-538-A	MOTOR ASSY (ELV)	
S201	1-771-853-11	SWITCH, DETECTION (LIMIT)	
S881	1-478-706-21	ENCODER, ROTARY	
△ T901	1-443-682-11	TRANSFORMER, POWER(HPZ7: CND)	
△ T901	1-443-683-11	TRANSFORMER, POWER (AEP, UK, CET)	
△ T901	1-443-686-11	TRANSFORMER, POWER(HPZ9)	

REVISION HISTORY

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SS-CHPZ7/CHPZ9

SERVICE MANUAL

Ver. 1.1 2005.05

- SS-CHPZ7 is the speaker system in CMT-HPZ7.
- SS-CHPZ9 is the speaker system in CMT-HPZ9.



SS-CHPZ7



SS-CHPZ9 (L-ch)

US Model

SS-CHPZ9

Canadian Model

SS-CHPZ7/CHPZ9

AEP Model

UK Model

SS-CHPZ7

E Model

SS-CHPZ7/CHPZ9

Australian Model

SS-CHPZ9

SPECIFICATIONS

SS-CHPZ9

Speaker system	3-way, bass-reflex type
Speaker units	
Super tweeter:	2 cm dia, cone type
Woofer:	15 cm dia, cone type
Tweeter:	4 cm dia, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 180 × 296 × 245 mm
Mass	Approx. 2.8 kg net per speaker

SS-CHPZ7

Speaker system	2-way, bass-reflex type
Speaker units	
Woofer:	13 cm dia, cone type
Tweeter:	4 cm dia, cone type
Nominal impedance	6 ohms
Dimensions (w/h/d)	Approx. 165 × 275 × 215 mm
Mass	Approx. 2.3 kg net per speaker
Design and specifications are subject to change without notice.	

SPEAKER SYSTEM

9-879-568-02

2005E16-1

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Sony Corporation

Personal Audio Group

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SS-CHPZ7/CHPZ9

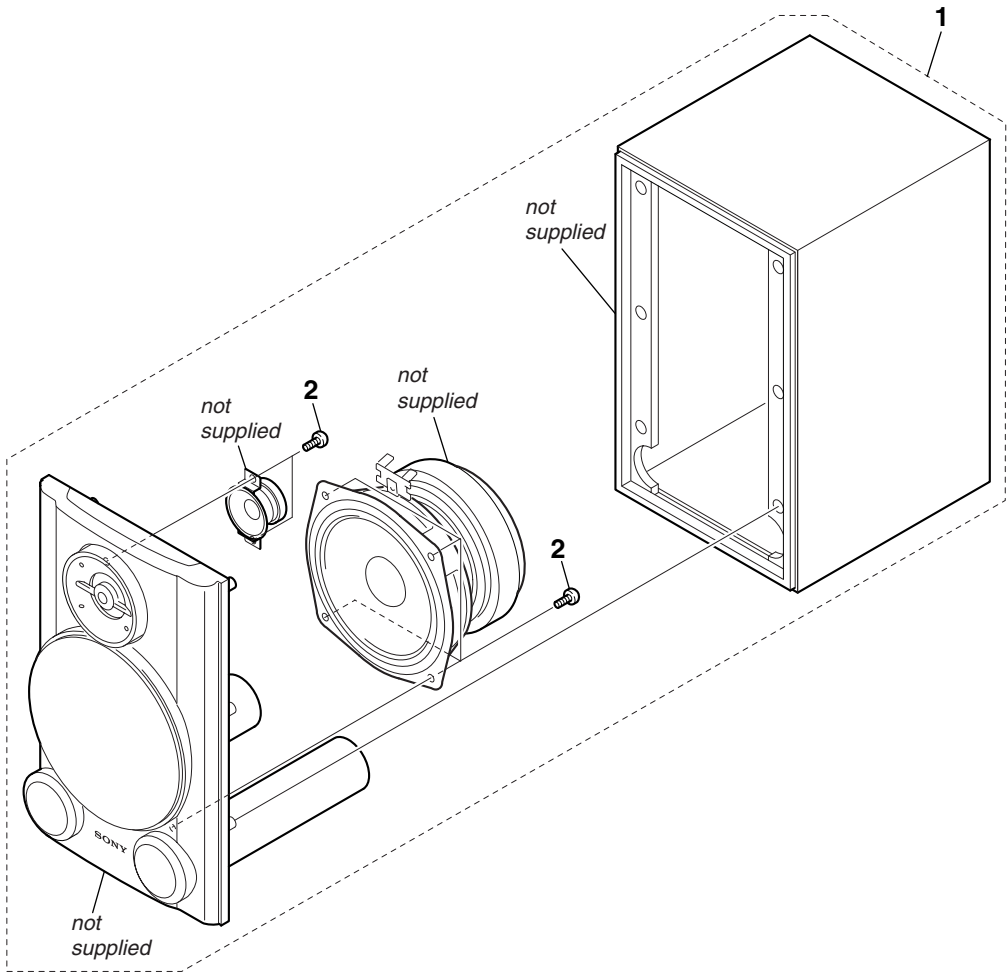
EXPLODED VIEW AND PARTS LIST

NOTE:

- XX, -X mean standardized parts, so they may have some differences from the original one.
- The mechanical parts with no reference number in the exploded views are not supplied.

SS-CHPZ7

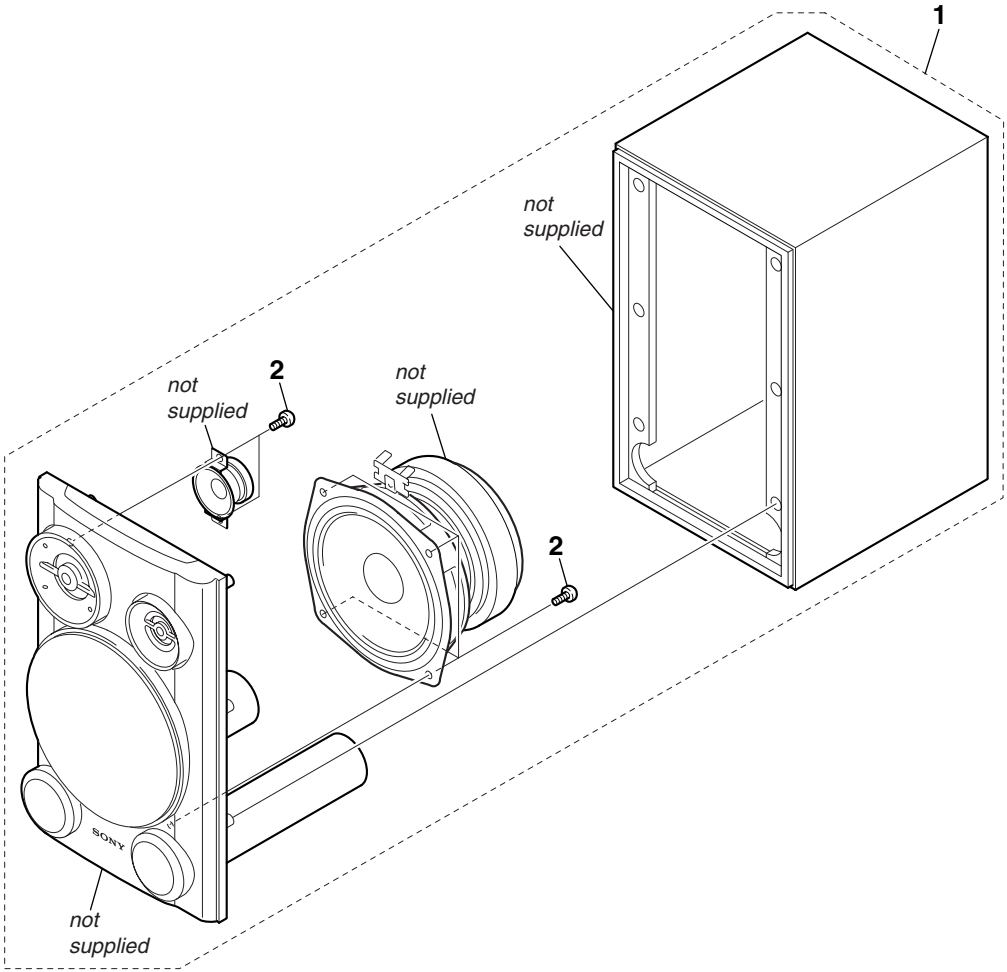
L-CH



Ref. No.	Part No.	Description	Remarks
1	A-1095-116-A	OVERALL ASSY	
2	4-874-614-82	SCREW +BV4/3.5	

SS-CHPZ9

L-CH



Ref. No.	Part No.	Description	Remarks
1	A-1095-122-A	SYSTEM (L) ASSY	
1	A-1095-123-A	SYSTEM (R) ASSY	
2	4-874-614-82	SCREW +BV4/3.5	

REVISION HISTORY

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